रजिस्ट्री सं० डी० 221 REGISTERED No. D. 221

भारत का राजपत्र
The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उपखण्ड (ii)

PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

सं० 124] नई दिल्ली, बुधवार, अप्रैल 1, 1970/चैत्र 11, 1892

No. 124] NEW DELHI, WEDNESDAY, APRIL 1, 1970/CHAITRA 11, 1892

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिस से कि यह अलग संकलन के रूप में रखा जा सके।

Separate paging is given to this Part in order that it may be filed as a separate compilation.

MINISTRY OF RAILWAYS

(Railway Board)

RESOLUTION

New Delhi, the 1st April 1970

S.O. 1287.—In continuation of Notification No. E(O)II-62API/4-1, dated 27th July, 1962, published in Part II, Section 3, Sub-Section (ii) of the Government of India Gazette Extraordinary dated the 28th July, 1962 the Government of India have received the Report submitted by the Commission of Inquiry under the Chairmanship of Shri Bishan Narain, retired Judge of the Punjab High Court, on the causes of collision between 6 Down Amritsar-Howrah Mail and 1267 Up SQT Goods train at Dumraon Station of the Eastern Railway on 21st July, 1962 and hereby publish it for general information. The Government have accepted the findings and, after due consideration, taken appropriate action on the recommendations at item No. 1 to 8 and 10 to 14 of the summary of recommendations given in para 151 of the report.

CHAPTER I

GENERAL

1. *Introductory.*—On the night of 21st July, 1962, a head-on collision occurred between 6 Down Amritsar-Howrah Mail and 1267 Up Small Quick Transit Goods Train on the Down Main line at Dumraon station which is situated on the Main line of Eastern Railway, 63 miles (101·4 kilometres) West of Patna. As a result of this disastrous accident, 74 persons died. 66 on the spot and 8 subsequently, and 74 persons received injuries.

2. The Government of India acting under the Commission of Inquiry Act, 1952, (LX of 1952) issued a notification on 27th July, 1962, appointing this Commission. The terms of reference of the Commission were as follows:

(a) make an inquiry into the causes of the said accident and for that purpose take such evidence as may be necessary;

(b) state its findings as to causes of the said accident and as to the person or persons, if any, responsible therefor; and

(c) suggest safeguards against similar accidents in future.

A copy of the Notification was sent by the Government of India to the Government of Bihar State.

3. The Commission held preliminary meetings at Delhi on 31st July and 1st August, 1962, and decided upon the programme of inquiry. It was decided to hold the sittings at Patna as it was the nearest place to the site of accident best suitable for holding sittings as also for witnesses and lawyers to attend. It was also decided to commence the sittings of the Commission for recording evidence on and from 25th August, 1962, and due notice was given to the Press and published in leading newspapers requesting members of the public who were in a position to assist the Commission to send their memoranda so as to enable the Commission to decide who should be called for giving evidence before it.

4. Meanwhile, the Additional Commissioner of Railway Safety, Eastern Circle, Calcutta, commenced his statutory inquiry under Sections 83 and 84 of the Indian Railways Act and recorded evidence on the 23rd, 24th and 25th of July, 1962. He, however, suspended the inquiry on learning of appointment of this Commission and forwarded the evidence, recorded by him till then, to the Railway Board, which was duly made available to the Commission.

5. Before commencing the regular hearing, the Commission inspected the site of the accident at Dumraon on 13th August, 1962, at which it was assisted by the Officers of the Eastern Railway. Shri H. N. Sanyal, Additional Solicitor General, representing the Railway administration, was also present.

6. The Commission commenced its sittings in the Lady Stephenson Hall, Patna on 25th August, 1962. The following counsels were present:—

Shri H. N. Sanyal.—Additional Solicitor General, Government of India, representing Railway administration.

Shri R. K. Singh.—Senior District Prosecutor, representing the Bihar State.

Shri A. K. Dutt (appeared at a later stage on 25th August, 1962).—On behalf of Shri Ram Autar, Cabinman, West Cabin, Dumraon.

7. Shri Sanyal opened the case on behalf of the Railway and during the course of his statement of the case mentioned that certain relevant documents were in the custody of the Police authorities. Shri R. K. Singh on being questioned stated that these documents were in the custody of the Sub-Divisional Officer, Buxar. The Commission thereupon felt that possibly the subject matter of the inquiry was sub-judice and asked the learned counsel to look into the matter and find out the exact position. Subject to this, the proceedings were continued and Shri A. S. Rama Rao, Divisional Signal and Tele-communication Engineer, Eastern Railway, Dinapore was examined. The Commission met on the 27th and 28th August, 1962, and after hearing the arguments of the Counsel on behalf of the Railway, the Bihar State and the Cabinmen, understood that the Bihar State had started criminal proceedings against the Cabinmen Working in the East and the West Cabins at Dumraon station at the time of the accident. The Commission came to the conclusion that it would not be proper to conduct parallel investigations and adjourned the sittings *sine die*. The detailtd report submitted by the commission to the Government of India in regard to these developments and explaining the reasons why the Commission could not continue the inquiry is enclosed as Annexure 'A'.

8. After the matter had been discussed between the Government of India and the Bihar State Government, the Commission was advised by the Ministry of Railways (Railway Board) *vide* their letter No. E(O)II-62AP1/4 dated the 24th September, 1962, that the Munsif Magistrate, Buxur, had permitted the withdrawal of the criminal cases pending against the two Cabinmen, on the 17th September, 1962, and that the Commission might recommence its investigations. On going through the copy of the Order

Sheet of the Munsif Magistrate, Buxur, which was forwarded to the Commission by the Superintendent of Police, Crime Branch, Criminal Investigation Department, Bihar, it was noticed that the counsel for the accused had opposed the petition for withdrawal. It was, therefore, considered necessary to allow at least a minimum period of a fortnight for any revision petition that might be filed in the appellate court against these orders, before taking any further action in regard to the re-commencement of the hearing. Necessary Press notices were accordingly issued on the 11th October, 1962, in the leading daily newspapers in English and various regional languages announcing the re-commencement of the hearing at Patna on and from the 22nd October, 1962.

9. The Commission resumed its hearings in the Lady Stephenson Hall, Patna on 22nd October, 1962 and completed it on 30th October, 1962, including arguments of the counsels. The following counsels were present:—

Shri H. N. Sanyal.—Additional Solicitor General, Government of India, representing Railway administration.

Shri K. P. Verma.—Representing the Bihar State.

Shri A. K. Dutt.—Appearing on behalf of Shri Ram Autar Cabinman, West Cabin, Dumraon.

Shri H. N. Singh.—Appearing on behalf of Shri C. P. Singh, Cabinman, East Cabin, Dumraon.

Shri Kanhaiyajee.—Appearing on behalf of Shri B. D. Sahai, Assistant Station Master, Dumraon.

10. The two Cabinmen hesitated to depose before the Commission on the plea that this might prejudice their case in the event of the State Government deciding to prosecute them subsequently. They also insisted that their evidence, as recorded by the Commission, and the findings of the Commission should not be made public till the prosecution proceedings, if any, that may be started by the State Government, have been finalised. As the Commission would have been seriously handicapped in conducting the investigations and arriving at a correct finding without knowing the Cabinmen's version of the case, the matter was discussed with the counsels and it was decided that the evidence of the Cabinmen would be recorded in camera. An assurance was also given that no portion of the report relating to the conduct of the Cabinmen and their responsibility would made public till criminal proceedings, if any, that might be started against them, have been finalised in order to ensure that their trial was not prejudiced in any manner whatsoever. This assurance is in accord with the recommendations made by the Railway Accidents Inquiry Committee in 1954. Such a practice exists in the United Kingdom also.

11. The Commission examined 18 witnesses in all, of whom 13 were railway employees, 3 were the employees working in the Bihar Electricity Department, one Railway Mail Service Sorter and a passenger travelling on 6 Down Mail. In the case of several others who offered to give evidence and submitted memoranda, the Commission felt that it would serve no purpose to record their evidence as they could not help the Commission in its tasks under the terms of reference of its appointment. The evidence of Shri Shahid All Khan, Divisional Operating Superintendent (Transportation), Eastern Railway, Dinapore, was also recorded in camera on the suggestion of Shri H. N. Sanyal, Additional Solicitor General, that it would be inappropriate to discuss the detailed working of the Control Organisation in public in view of security reasons. The arguments of the counsels were also heard in camera on the request of the counsels for the Cabinmen as the arguments would naturally contain references to their evidence and reflections on their conduct. All other evidence was taken in public.

12. On 25th October, 1962, the Commission inspected the Control Office at Dinapore in order to ecquaint itself with the working of that organisation which was explained to them by the Chief Operating Superintendent, Eastern Railway and other officers. On the afternoon of 26th October, 1962, the Commission proceeded by car to Buxar and travelled by a special train from Buxar to Dumraon, part of the journey being on the engine of the train. The object of the Commission was to obtain by personal investigation a better appreciation of the evidence that came before it regarding the visibility of obstruction on the running line from the engine of 6 Down Mail as well as from the cabins and other allied matters regarding the situation at the station just before the accident. A note on the observations of the Commission is given in Annexure 'B'.

13. On 26th October, 1962, permission was given to the Chief Operating Superintendent, Eastern Railway, to have the damaged engines and other rolling stock removed from site as the Commission had no need to inspect them any more.

14. The Commission was assisted in following up evidence by an excellent model of Dumraon station, complete with Block instruments, telephones, miniature signals and cabins with miniature levers in which the process of giving and obtaining line clear and lowering of signals could be realistically demonstrated. Another small scale model as also chart of the station were helpful in understanding the working and sequence of operations.

15. On the conclusion of its hearing at Patna on 30th October, 1962, the Commission proceeded to Gaya and inspected there on 31st October, 1962, the working of a big cabin where an Assistant Station Master is in charge as also the track-circuiting there, as references to these camp up during the course of the evidence and arguments.

16. In regard to the third item of the terms of reference, *i.e.*, suggestions for safeguards against similar accidents in future, the Commission examined seven witnesses, two of whom were Officers of the Railway Board and two of the Eastern Railway, two Officers from the organization of the Commissioner of Railway Safety and one retired Chief Signal and Tele-communication Engineer of the Railway. Part of the evidence was recorded at Patna on 30th October, 1962, and this was continued at New Delhi, together with discussions with these Officers from 16th November to 19th November, 1962. From 20th November to 7th January, 1963, the Commission was engaged in writing out its report.

17. *Description of the Accident.*—At about 21·49 hours on 21st July, 1962, 6 Down Amritsar—Howrah Mail (with a load of 12 bogies worked by Engine No. 7027 WP Driver L. Braganza, Guard E. V. Shah), had a head-on collision with 1267 Up SQT Goods train (Engine No. 22218 XC load 41 wagons, Driver Mohammad Siddique, Guard R. P. Ram)—standing on the Down Main line at Dumraon station of Dinapore division of the Eastern Railway.

18. *Casualties.*—Unfortunately, as a result of the accident, 74 persons died of whom 66 died on the spot and 8 subsequently, either in or on their way to hospitals at Patna and Dumraon. 74 persons received injuries out of whom 46 were simple injuries.

19. *Damages to Locomotives and Rolling Stock.*—As a result of this collision the engines of both the trains were badly damaged. The first six bogies of 6 Down Mail derailed and were damaged. The remaining six bogies remained on the line and were not damaged. The loco rest van and two wagons of 1267 Up SQT train derailed and were damaged. A brief description of damages to the engines, coaches and wagons is given in Annexure 'C'.

20. *Type of Station.*—Dumraon station is located on the Dinapore—Mughalsarai section. The Control Office is at Dinapore which is also the headquarters of the Division.

21. Dumraon is an 'A' Class Block station on the double line section between Dinapore and Mughalsarai on the Main line of the Eastern Railway. This section is worked on the Absolute Block System. Dumraon is provided with Standard III Interlocking with full lock and block working (worked from two cabins) between the adjacent block stations on either side, *viz.*, Baruna on the West or Mughalsarai side and Twining Ganj on the East or Howrah side.

22. The Baruna-Dumraon block section on the Down side commences from the Down Starter of Baruna and ends at the Down Starters of Dumraon Station. Likewise the Twining Ganj-Dumraon block section on the Up side commences from the Up Starter of Twining Ganj and ends at the Up Starters of Dumraon.

23. The East Cabin is provided with a control phone with an extension to the Assistant Station Master's Office. The Section Controller can ring up the East Cabin but cannot ring up the Assistant Station Master and for this purpose the Section Controller has to ask the East Cabin to advice the Assistant Station Master to attend to the Control telephone. The Assistant Station Master can talk directly to the Section Controller. There is a separate telephone arrangement between the Assistant Station Master's Office and the two Cabins by means of which the Assistant Station Master or any Cabinman can directly ring up any of the other parties and talk to each other.

24. There is inter-slotting control between the two cabins, each cabin controlling the reception signals, *i.e.* the Main Home, the Loop Home and the Warner signals of the other cabin. The slot for the Warner signal is automatically released when the Main line Starter and Advanced Starter are lowered. The slots work electrically. The Station Master has no control on any of the signals

25. The description of the points and signals controlled by the two Cabins together with their lever numbers is given in Annexure 'D'.

26. *Engineering Layout of the Station.*—The Dumraon Station has a Down Main line and a Down Loop line and Up Main line and Up Loop line. It is provided with an island platform situated between the Down Main line and the Up Main line. The Down Main line lies immediately to the North of the platform and Up Main line to the South of the platform. The Down loop line is situated on the North of the Down Main line and the Up Loop line lies to the South of the Up Main line. The loops have got 1 in 12 turn-outs in both directions. There are also goods sidings taking off from the Down Loop and Up Loop. The goods shed is situated on the Up side, *i.e.* south of the station.

27. An emergency cross-over is provided at the East end of the station between the Up and Down Main lines for taking trains from the Up line to the Down line and *vice versa*. This cross-over has got 1 in 8½ turn-outs at both ends.

28. An interlocked 'A' class level crossing gate is situated between the Down bracketted Home Signal and the West Cabin at a distance of 615 feet from the Down Home Signal. A 'B' class non-interlocked level crossing gate is situated between the Down Starter signals and the East Cabin. There is also a 'C' class level crossing gate No. 65 located between the East Cabin and the Down Advanced Starter.

29. A diagram indicating the distances of the various signals and the cabins with reference to the centre of the station building as well as curves and gradients of the track is attached as Annexure 'E'. The centre line of the station buildings falls at Mile 400 feet 3570 is with reference to the zero oint at Howrah.

A site plan of the accident is enclosed as Annexure 'F'.

30. The maximum speed permitted on the Up and Down Main lines is 60 miles per hour. The Up and Down Loop lines have a speed restriction of 10 miles per hour.

31. The alignment is generally straight but there are curves at places. There are curves of small lengths on both approaches of Dumraon station. These curves have a radius of 5730'. They are transitioned and have got super-elevation of 2". For a Down train the approach to the station is straight until at 1822 feet from the centre of the station building a left handed curve starts and ends at 1120 feet. After a short length of straight a right handed curve starts at 990' from centre of station building and ends at 320 feet. A part of the platform portion of the line is thereafter straight but beyond this a right handed curve exists between 20 feet and 480 feet from the centre of the station on Howrah side. Further on, the track is straight.

32. The gradients on the line for a down train (approaching from Mughalsarai side) are given below:—

Falling grade 1 in 1,000 upto a point 918 feet towards the west of the centre of the station building.

Rising grade of 1 in 1,000 from the above point to 1158' towards the east of the centre of the station building.

CHAPTER II

THE CAUSE OF THE ACCIDENT

33. As has already been stated, this Commission has been appointed *inter alia* to inquire into the causes of this accident and to find person/person responsible. If any, therefor. For this purpose, it is necessary to inquire into the type of the accident that took place at Dumraon on 21st July, 1962. Fortunately, there is no dispute as to the type of this accident. 1267 Up Goods train (Called S.Q.T. train, which is an abbreviation for Smalls Quick Transit train), came from Twining Ganj (Howrah side) and was received on the Up Main line. It was then shunted to the Down Main line under orders of the Section Controller. It was still on the Down Main line when 6 Down Amritsar-Howrah Mail (hereinafter called the 6 Down Mail) came to Dumraon station on the same line. 6 Down Mail had a head-on-collision with 1267 Up S.Q.T. The engine of the two trains collided with each other resulting in considerable loss of life and property. There is no dispute as to the nature of this accident and all witnesses before us have stated that the accident took place, as described above.

34. To determine the cause of this accident, it will be necessary to discuss:—

(i) the circumstances in which 1267 Up S.O.T was shunted from the Up Main line to Down Main line and was kept there till the accident took place.

(ii) the circumstances in which 6 Down Mail came on the Down Main line with the consequent collision.

35. It will be convenient to deal with these two aspects of the matter separately.

36. *The circumstances in which 1267 Up was shunted to Down Main line and kept there.*—Section 47 of the Indian Railways Act provides that in the case of a Railway administered by the Government the Central Government shall appoint an Officer to make General Rules *inter alia* for regulating the working and management of the Railways. General Rules have been made under this statutory provision and are still in force. The erstwhile East Indian Railway framed Subsidiary Rules for the same purpose to serve local conditions. Admittedly, these General and Subsidiary Rules, including the latest amendments thereto are applicable to the Eastern Railway. The Dumraon Station is within the zone of the Eastern Railway.

37. Now, under the General Rules, there is no specific provision permitting the shunting of an Up and Down train to the opposite line. General Rule 160 lays down that the Driver shall take his train along the proper running line. There is then Subsidiary Rule 160. It read as it originally stood:—

"S.R. 160(a).—Above Sitarampur on the Main line and above Dhanbad on the Grand Chord line, an up or down train may, when absolutely necessary, be shunted on the opposite line to give precedence to a faster train in the same direction. When this is done, the following procedure shall be observed:—

(i) All signals up and down shall be in the 'ON' position.

(ii) Where there are two cross-over roads, the cross-over nearest the rear of the train shall be used, and the return from the opposite line shall be made by the same cross-over.

(iii) The line or lines shall be blocked forward or back, or both, as the case may be.

(b) A train which has been shunted on to the opposite line shall before being started on its journey be brought back to its proper line when it shall stop within the starter signal until that signal is lowered for the train to start."

38. This Subsidiary Rule was modified in 1951 and the only amendment is that the restriction relating to the area to which the Subsidiary Rule was applicable was deleted. This Subsidiary Rule also does not specifically state as to who is to decide whether or not it is absolutely necessary to shunt the train to the opposite line.

39. Every station all over the Indian Railways has separate Working Rules and so has Dumraon station. Rule 5(a) of the Dumraon Station Working Rules reads:

"Movement of trains will be controlled by the Section Controller whose orders must be promptly carried out without question provided they do not contravene any General Rule, Subsidiary Rule, Station Working Rule, Block Working Manual or Safe working".

40. The Railway Administration considers shunting of a train on to the opposite line as a part of the movement of trains and, therefore, it follows that it is the Section Controller who issues instructions under Subsidiary Rule 160.

41. In the present case it is fully established by the evidence of Shri A. P. Gupta, Section Controller, and that of Shri B. D. Sahai, Assistant Station Master, then on duty, that the Section Controller instructed Shri B. D. Sahai at 19:40 hours that 1267 Up (S.Q.T. train) which had just left Raghunathpur, was due to arrive at Dumraon within a few minutes and that it was to be shunted after its reception on the Up Main line, to the Down Main line for the purpose of loading and unloading packages

42. The S.Q.T. train actually reached Dumraon Station on the Up Main line at 20:02 hours. The Assistant Station Master on duty, however, had made out the Shunting Order at 19.55 hours in anticipation of the train's arrival in accordance with the instructions of the Section Controller. This Shunting Order was delivered to the Driver of the S.Q.T. train who signed it in token of its receipt at 20.12 hours. Thereafter Shri B. D. Sahai proceeded to take steps to shunt the train to the Down Main line. The S.Q.T. train had first to be taken beyond the cross-over which at Dumraon station is situated on the east side only. The Assistant Station Master contracted the East Cabin man and got the necessary points set. The Down Main line was blocked by the Assistant Station Master and he informed both the Cabinmen of this fact at 20·34 hours after the exchange of private numbers and the two Cabinmen made correct entries

of this fact in their Log Registers. The S.Q.T. train was then taken over the cross-over and beyond it on to the Down Main line. As it vacated the Up Main line the Assistant Station Master informed both the Cabinmen of the clearance of the Up Main line at 20.35 hours after exchanging private numbers with them and it is seen from the Log Registers of both the Cabins that the two Cabinmen made correct entries of this fact. The train was then drawn along the Down Main line and berthed on the platform on the same line at 20.45 hours. The Station Working Rules require that when shunting involves the use of running lines, this fact must be recorded both in the Train Signal Register and the Log Register but, curiously enough, both the Cabinmen omitted to make these entries in the Train Signal Registers. That all these proceedings were taken in accordance with the rules, excepting the omission to make the required entry in the Train Signal Register, is amply proved on the oral and documentary evidence produced before us and this fact is also plotted on the Control chart. There is no suggestion on the record that these proceedings were not taken or were not taken in accordance with the relevant rules.

43. After the Down Main line had been occupied, it was the duty of the West Cabinman either to block back the section between Baruna and Dumraon or to set and lock the Down facing points to the Loop line. Under the rules, when a section is blocked back then the Cabinmen concerned must make an entry to this effect in the Train Signal Register. There is no such entry in the Register of the West Cabinmen, nor is there any entry to this effect in his Log Register. The West Cabinman does not say that he had during all this time blocked back the section. He has admitted before us that after the Down Main line had been occupied by the S.Q.T. train, he had not set nor locked the Down facing points to the Loop line. This is also evident as the Mail reached Dumraon station on the Main line.

44. In the circumstances, we are satisfied that the West Cabinman neither blocked back the Section nor did he set and lock the points from the Down Main line to the Loop line.

45. It has already been stated that the 1267 Up S.Q.T. train reached the platform on the Down Main line at 20.45 hours when loading and unloading of packages from this train commenced. The evidence of Shri R. P. Ram, Guard of the S.Q.T. train and Shri B. D. Sahai supported by the van guidance show that 105 packages from four wagons of this train had to be unloaded and two packages had to be loaded. This evidence we accept as correct. Under the rules, the Guard of the S.Q.T. train had to unload the packages and then he had to put the Assistant Station Master in charge of them. He had to take charge of the two packages from the Assistant Station Master and also to load them. The Section Controller has stated before us that he had estimated that loading and unloading operation in this case would take about an hour. The Assistant Station Master has stated that these operations were completed just in about one hour and that immediately after, the 6 Down Mail train arrived. It is not necessary to determine whether this estimate of the Section Controller was correct or not or whether the statement of the Assistant Station Master is to be accepted or not because even if a little less time had been taken in this operation it would have taken another about half an hour to shunt the S.Q.T. train back to the Up Main line, or to the Down Loop line and these operations could have taken place only after getting instructions from the Section Controller. Once the 1267 Up S.Q.T. train had occupied the Down Main line at 20.45 hours it was well nigh impossible to vacate the line after completing the loading and unloading of packages before the 6 Down Mail train became due to reach Dumraon station. Moreover, the Assistant Station Master had to look after the 319 Up (Passenger train) and 71 Up (Parcel Express train) which had reached the station in the meantime and the performance of this duty was bound to delay the taking over charge of the unloaded packages. Taking all these matters into consideration, we are of the opinion that the 1267 Up S.Q.T. train could not have been removed from the Down Mail line before the 6 Down Mail train was due to reach Dumraon station. It follows, therefore, that the detention of 1267 Up S.Q.T. train on the Down Mail line upto the time of the accident was not unreasonable and did not violate any procedure laid down in Railway Rules.

46. *The circumstances in which 6 Down Mail train came on the Down Main line with the consequent collision.*—The 6 Down Mail train left Mughalsarai at 20 hours and it was late by 16 minutes when it left Buxar station. From Buxar it had to go through Baruna, Dumraon, Twining Ganj, Raghunathpur, Banahi, Bihiya, Kauriya Halt, Karisath, and its next stop was Arrah Jn. It reached Baruna at 21.43 hours and was due to reach Dumraon at 21.48 hours.

47. At 21.40 hours Baruna Cabin (it is a single Cabin station) asked Dumraon West Cabinman for line clear for the 6 Down Mail train which was granted by West Cabin

Dumraon at 21.41 hours. The West Cabinman asked the East Cabinman for the slot at 21.44 hours and got the slot for the Down Main line at 21.45 hours. Thereupon, he lowered the Down Main Home signal, after closing the level crossing gate. On receiving the slot for the Down Warner he lowered this signal also. According to the West Cabinman, soon after the collision took place. The East Cabinman has admitted that he gave the slot for the Down Main line and that he lowered the Down Main Starter and Down Advanced Starter for the same line. We are not concerned at this stage with the explanation given by the Cabinman for acting in the way that they did. Thus the relevant signals for reception of the Mail train on the Down Mail line, i.e., the occupied line were lowered which inevitably resulted in this serious collision. The fact that the Down Main Home signal was lowered is proved by the statement of the Driver of the 6 Down Mail train. The Assistant Station Master has stated that just before the 6 Down Mail train reached the station he had seen the Down Main line Starter signal on the east side in lowered position. That the relevant reception signals of the Down Main line were lowered is also proved by the statements of the Station Master, Shri H. S. Chawla, and Shri Md. Ibrahim, Transportation Inspector (Power/Safety) who went after the accident to the West Cabin and saw the signal levers for the Down Main Home and Down Warner in pulled position.

48. We are, therefore, satisfied that the signals were lowered which were necessary to allow a run through to the 6 Down Mail train on the Down Main line of Dumraon station on 21-7-1962 when the said line was already in occupation of the S.Q.T. train.

CHAPTER III

RESPONSIBILITY FOR THE ACCIDENT

49. It will now be convenient to discuss the possibilities of this accident being due to :—

(i) sabotage by some known or unknown persons, or

(ii) defect in the inter-locking mechanism,

(iii) conduct of person or persons responsible, if any.

50. *Sabotage.*—There is no evidence before us nor is there any suggestion that any saboteur had damaged any mechanical apparatus or had interfered with any person in the course of his performance of his duties which damage or interference may have resulted in the accident. It is known that the 1267 Up S.Q.T. train was taken to the Down Main line in accordance with the rules and under instructions given by authorised persons. It is also known that the 6 Down Mail train arrived on this very line which was occupied by the 1267 Up S.Q.T. train in accordance with the signals lowered by the two Cabinmen. These facts necessarily excluded the possibility of the accident taking place by sabotage. It was faintly suggested that some person other than Shri Ram Autar occupied the West Cabin at the relevant time and that it was that person who manipulated the levers. This is denied by Shri Ram Autar and is contradicted by the entries in the Train Signal Register and Log Register, which Shri B. D. Sahai has identified to be in the hand writing of Shri Ram Autar. Shri Ram Autar has categorically stated that he was in the West Cabin from the time that his shift duty started till some time after the accident. For these reasons we have no hesitation in coming to the conclusion that this accident was not due to sabotage.

51. *Defect in the Inter-Locking Mechanism.*—The normal position of the down facing points on the west side of the station is to receive a train on the Down Main line. It is admitted by the West Cabinman that he did not set and lock the points to the Down Loop line when he had been told that the 1267 Up S.Q.T. train had occupied the Down Main line. He has not suggested in the witness box though represented by a counsel that at any subsequent time before the reception of the 6 Down Mail train he had set the points to the Loop line. There is also no suggestion that the West Cabinman set the points to the Loop line before the reception of the 6 Down Mail train but that on account of mechanical defect the points did not set as desired by him. Similarly, it has not been suggested by the West Cabinman, who alone can manipulate the signals, that he had lowered the signal for the Down Loop line but owing to mechanical defect the signal for the Down Loop line was not lowered. In fact, his case is that he had lowered the signal for the reception of the 6 Down Mail train on the Down Main line after the required exchange of private numbers.

52. Moreover, the inter-locking gear in both the East and the West Cabins was inspected by Assistant Maintenance Inspector, Buxar, on 20th July 1962 and the points,

signals, and inter-locking gears were found to be in good working order. Thereafter, no complaint of any defect was reported to the Station Master. It is the responsibility of the Cabinman to report any such defect to the Assistant Station Master on duty as soon as he comes to know of it. There is no evidence of any such complaint. The signal failure register in which such a complaint is to be entered does not contain any such entry since 30th June 1962. Soon after the accident the inter-locking mechanism was inspected by the Assistant Signal and Tele-communication Engineer, Dinapore Division, and was found to be in order. It must, therefore, be held that this accident was not due to any defect in the inter-locking mechanism.

53. *Conduct of Person or Persons Responsible, if any.*—Now the way is clear to discuss the conduct of persons who were concerned with the occupation of the Down Main line by 1267 Up S.Q.T. train and of those who were concerned with the arrival of the 6 Down Mail train on the same line to determine if any of these persons can be said to be responsible for this accident. These persons are :—

1. The Section Controller.
2. The Assistant Station Master.
3. The Driver of 1267 Up S.Q.T. train.
4. The West Cabinman.
5. The East Cabinman.
6. The Driver of 6 Down Mail train.

54. *Section Controller (Shri A. P. Gupta).*—Like all other zonal railways, the Eastern Railway has a Control Organization. One of its purposes is to co-ordinate movement of trains to obtain the maximum utilization of the available capacity. To attain this objective Divisional Control Organizations have been set up. Each Divisional Control Organization is located at the Divisional Headquarters and is in charge of the Divisional Operating Superintendent (Transportation). In some sections there are also sub-control offices but we are not concerned with them in this case. This Divisional Control Organization is further sub-divided into Control sections. We are concerned here with the Control Organization of Dinapore Division. This Division's Control Organization is divided into four sections. Dumraon station is situated within the Dinapore—Mughal Sarai section. This section is in charge of a Section Controller. It is 126 miles in length and has 23 stations. The Section Controllers of this section work in shifts of 8 hours each and their office is located at Dinapore. The Section Controllers are connected to all stations on their sections by means of a telephonic arrangement and it is their responsibility to co-ordinate the movement of trains within the section. They maintain a time distance graph which is known as the Control Chart. One sheet of this chart is used for one day, that is, 24 hours. It is the duty of the station staff of each station within the section to keep the Section Controller informed of the arrivals and departures of each train as it passes his station. The Section Controller plots this on the Control Chart and thus by looking at the chart it can be known as to how many trains are in the section and their actual position at a given time. The plotting is done with 4 coloured pencils. The plotting with red pencil indicates Mail and Express trains, blue pencil for Passenger trains, green pencil for through Goods trains including S.Q.T. and black lead for ordinary Goods trains. On the chart at various places there is writing in red and blue ink noting down the information received from various stations for the purpose of regulating trains. With this data, the Section Controller co-ordinates the movement of trains within his section, as *inter alia* he is able to anticipate the likely points where a faster train can overtake and pass a slower train conveniently. It has already been stated that Section Controller has telephonic connection with each station within the section. The location of the Control phones at stations, however, varies from station to station depending upon the layout of the Station and the volume of traffic handled there. The Telephone connection at the Dumraon station between the Section Controller and the station staff is located in the East Cabin with an extension to the Assistant Station Master's room. The extension is of the type that the Section Controller can contact the Assistant Station Master only through the East Cabin whereas the Assistant Station Master can speak direct to the Section Controller by merely lifting the receiver. The Assistant Station Master has also a separate telephonic connection with both the Cabins at the station. At Dumraon it is the East Cabinman who informs the Section Controller of the arrivals and departures of trains.

55. On the 21st of July, 1962, Shri A. P. Gupta, Section Controller, was on his shift duty in Dinapore Control Office from 16 hours upto midnight. At 19.40 hours he issued instructions to the Assistant Station Master, Dumraon station to shunt the 1267 Up S.Q.T. train from the Up Main line to the Down Main line on its arrival from Twining

Ganj, as has already been stated above. These instructions were admittedly carried out and the Down Main line was occupied by the S.Q.T. train in due course.

56. If Shri Gupta had not given these instructions or if they had not been carried out, then the collision of the 6 Down Mail train with the 1267 Up S.Q.T. train would not have taken place. These instructions form the first link in the chain of events which ultimately resulted in the accident, under investigation. It is, therefore, necessary to consider how far these instructions given by Shri Gupta were justified or were in accordance with rules.

57 Under Rule 5(a) of the Station Working Rules the station staff was bound to carry out these shunting instructions as their implementation at that time did not violate any General or Subsidiary Rules nor did it affect safety of any train.

58. Under Subsidiary Rule 160, the instructions to shunt a train to the opposite line can be given only when it is considered "absolutely necessary", to give preference to a faster train. Shri A P. Gupta has told us that in his opinion it was "absolutely necessary" to shunt the 1267 Up S Q T. train from the Up line to the Down Main line to bring about the maximum utilization of the sectional capacity and to give preference to 319 Up (Passenger train) and 71 Up (Parcel Express); that by these shunting operations he avoided undue delay to the 1267 Up S Q T train at Dumraon. He has also given other reasons in support of his action but it is not necessary to describe all these reasons in this report particularly when some of these are rather vague. We must say that his statement before us was not satisfactory and it changed from time to time, probably, because he became nervous or got confused

59. It was pointed to us on behalf of the Railway that instructions have been issued relating to the S Q T trains to the effect that they are not to be delayed and for this purpose our attention was drawn to the following instructions of the Control Organization, Dinapore Division, which reads :—

> "The Section Controllers will get particulars regarding the position of Smalls traffic at 18 hours at each station and make arrangements for the Smalls Quick Transit service to clear the goods with as much promptitude as possible. The importance of carrying Smalls with great promptitude cannot be too strongly emphasized Quick movement of Smalls is the thing by which Railway Administration are judged by the trading public This is a very expensive service. Deputy Controllers and the Section Controllers are responsible to see their smooth and efficient working of the Small Quick Transit Service in the Division."

60 As we were not quite satisfied with the statement of Shri Gupta, we went to the Dinapore Control Office to see how a Section Controller performs his duties At the time of our visit the Section Controller was sitting and speaking to various stations almost without a stop and was thus getting information from them and was issuing instructions. Simultaneously he was plotting out the movements of trains in his Control Chart

61. To get the position cleared we examined Shri Shahid Ali Khan, Divisional Operating Superintendent (Transportation). He told us that in view of the questions put by the Commission to Shri Gupta, Section Controller, he had personally examined the control chart of 21st July, 1962, and that in his opinion the instructions issued by Shri Gupta at 19 40 hours for shunting 1267 Up S Q.T train at Dumraon from the Up Main Line to the Down Main line were "absolutely necessary", to achieve the maximum utilisation of the sectional capacity and, therefore, these instructions were fully justified He also mentioned the fact that by these instructions besides saving detention to other trains, the Section Controller avoided undue delay to the S Q T train.

62 It is obvious that the Section Controller has to make his decisions relating to movements of trains in his entire section in rapid succession and probably he draws considerably on his experience when issuing them These instructions are oral and are generally not recorded by him nor by the receiving station. These instructions, however, when they relate to movement of a train to the opposite line are then plotted in the control chart if and when they have been carried out by the Station concerned and the Section Controller has been informed accordingly If a station does not carry out the instructions given by the Section Controller, for some reason or the other *e.g.*, for the reason that they violate General Rules relating to safety of trains, then it is open to the station staff to inform the Section Controller accordingly and also for the Section Controller to issue fresh instructions after taking into consideration the information given to him We are given to understand that this contingency of a Section Controller giving instructions which violate rules of safety are extremely rare, if at all It is open to a Section Controller in a difficult situation to consult his immediate superior but that he is

not under any obligation to do so. Both Shri Gupta and Shri Shahid Ali Khan also impressed on us that the shunting of a train to the opposite line is a normal operation even if it entails the reception of a Mail train on the Loop line at a station like Dumraon, necessarily involving detention to the train.

63. Taking all these matters into consideration, we have come to the conclusion that it is neither necessary nor proper for this Commission to scrutinize the validity of the reasons which persuaded the Section Controller on 21st July 1962 to instruct the Dumraon station staff to shunt the 1267 Up S Q.T. train to the Down Main line, particularly when an experienced person like Shri Shahid Ali Khan has categorically stated that the decision of the Section Controller on this point was correct and that this decision resulted in maximum utilisation of the sectional capacity. We, therefore, hold that the instructions given by the Section Controller at 19.40 hours to shunt the 1267 S.Q.T. train to the Down Main line was in accordance with Rules.

64. The Section Controller also told us that he had given instructions to the Assistant Station Master and the East Cabinman at 19.40 hours that the Down trains are to be received on the Down Loop line and further that he had at about 21 hours directed the Assistant Station Master and the East Cabinman to pass the 6 Down Mail train via the Down Loop line. The fact that the Section Controller gave such instructions at 19.40 hours is supported by his detailed note, which is found at the bottom of the Control Chart. The Assistant Station Master has stated that the Section Controller while ordering the shifting of 1267 Up from Up Main line to Down Main line (*i.e.*, at 19.40 hours) had generally directed that all down trains should be passed via Down Loop but the Assistant Station Master denied any subsequent instructions from the Section Controller regarding passing of 6 Down Mail train. Shri C. P. Singh, East Cabinman totally denied having received any direction from the Section Controller on this point. We do not attach any importance to this discrepancy because Shri Shahid Ali Khan had told us that it is no part of Section Controller's duties to nominate a line on which a train or trains should be received, even if his instructions regarding shunting, etc., virtually result in such a nomination. In any case, issue or non-issue of these directions could not in any way have contributed to the present accident. We may add that we entirely agree with Shri Shahid Ali Khan that this note by the Section Controller was written by him after the collision although Shri Gupta stated that it was written from time to time as occurrences mentioned therein occurred.

65. Finally it is also necessary to note that under the Railway Rules it is the exclusive responsibility of the Cabinman concerned to pass a train in safety and that any instructions issued by the Section Controller need not be obeyed by the Cabinman if these instructions jeopardise safety. It was pointed out to us that even if a Section Controller issues wrong instructions then in no case would the safe passing of trains be affected nor can such instructions possibly result in an accident of the type with which we are dealing, if the Cabinman carry out their responsibilities faithfully in accordance with the rules. The wrong instructions of the Section Controller can at worse only adversely affect the movement of trains.

66. We therefore, do not hold Shri A. P. Gupta, Section Controller, in any way responsible for the accident.

67. *Assistant Station Master, Dumraon (Shri B. D. Sahai).*—Assistant Station Masters are recruited directly to the extent of 75 per cent and 25 per cent by promotion from Signallers and minimum qualifications is Matriculation. They are initially appointed on probation. As probationers the direct recruits receive training for 8-1/2 months in all. They attend the Training School at Sealdah for 6-1/2 months and then get practical training at a station for two months. Those promoted from Signallers receive 3-1/2 months training in the School and one month's practical training, making a total of 4-1/2 months. This is Class III service and the lowest grade is Rs. 130—210.

68. Shri B. D. Sahai joined service as Assistant Station Master on 5th December, 1948 as a Probationer and was given independent charge on 6th July, 1949. He was transferred to Dumraon on 17th May, 1959. It appears that he had served at Dumraon previously also from 20th June, 1954 to 6th November, 1955. Thus he was working at Dumraon during July, 1962. Assistant Station Masters at Dumraon station work in shifts of 8 hours a day. On 21st July, 1962, he joined at 18.00 hours and he was to remain on duty up to 2.00 hours of 22nd July, 1962. Therefore, he was on duty at the station when the accident, under consideration, took place.

69. Para 3 of Appendix 'A' of the Dumraon Station Working Rules describes the duties of the Assistant Station Master. His duties *inter alia* are to attend to all stopping trains carrying passengers and also to pass all stopping trains whether passenger or goods

trains. The Dumraon Station Working Rules do not specifically impose any duty on the Assistant Station Master towards a train which passes through the station without stopping there. The evidence is also to the same effect. In case of emergency like a breakdown in the Control or the block system the Assistant Station Master has certain specific duties to perform in connection with train passing work. Thus he had no duty towards the 6 Down Mail on 21st July, 1962, as it did not stop at Dumraon station and was to pass through it.

70. The Assistant Station Master, however, has a duty to shunt a train within the station limits under the instructions of the Section Controller. The Section Controller's instructions to shunt 1267 Up S.Q.T. train to the Down Main line were carried out by Shri Sahai in accordance with the Railway Rules. He made all the necessary entries in his Log Register correctly but in his Private Number Book he has written "Down Main Line Blocked" against the relevant Private Numbers. Subsequently he has written "Down Main Line Clear" against the next two Private Numbers and then over-written "UP" on the word "Down" which means that according to the entry as it now stands Up Main line was clear. Curiously enough the East Cabinman has also made a similar mistake with similar correction in his Lok Register. This must be considered to be a clerical mistake which was corrected very soon after because the Assistant Station Master had given this information correctly to the West Cabinman with exchange of Private Number and the West Cabinman had correctly recorded it in his Log Register which shows that the Up Main line was clear. In any case the East Cabinman has not said that the Assistant Station Master at that time gave any conflicting information which confused him at the time of giving the slot for the 6 Down Mail train.

71. The evidence shows that after shunting operation had been concluded it was no part of responsibility of the Assistant Station Master under Railway Rules or in practice to see if the West Cabinman had blocked back the Section or had set and locked the Down facing points for the Down Loop line.

72. After shunting the train to the Down Main line Shri B. D. Sahai attended to 319 Up (Passenger train) in accordance with the rules. Then he attended to the 71 Up (Parcel Express). The engine of this train developed a mechanical defect and it was delayed on the Up Main line. There is no suggestion that he did not perform his duties towards this train in accordance with rules.

73. Just a minute or so before the accident, under consideration, the Guard of the S.Q.T. train (from whom presumably the Assistant Station Master was taking charge of the unloaded packages) pointed out that the Down Main starter was in a lowered position. He (the Assistant Station Master) immediately ran towards his office and tried to contact the two Cabinman but without any success. In the meantime the accident must have taken place because otherwise there is no reason why he should not have been able to contact either of the two Cabinmen at that time although he has stated that he tried to contact the two Cabinmen one or half a minute before the accident. Shri B. D. Sahai then stated that he ran towards the East Cabin as he was unable to contact the Controller or the Cabinman from his office. His action was only natural because it is only from the East Cabin that he could talk to the Section Controller and inform him of the accident. On reaching there he found the East Cabinman, Shri C. P. Singh. He took possession of the Train Signal Register, the Log Register and the Private Number sheet of the cabin from the Cabinman and returned to his office. At that time he did not scrutinize the entries in the East Cabin registers.

74. In any case, as we have already stated, the Assistant Station Master had no responsibility of any kind whatsoever towards a train passing through the station and as there is no evidence that he had done anything to obstruct either of the two Cabinmen in performing their duties at that time, he cannot be held responsible for the accident. Under the rules at that stage he was in no position to avert the accident by any action that he could take. We have, therefore, come to the conclusion that the Assistant Station Master was in no way responsible for this accident and that he acted at that time in accordance with the Railway Rules.

75. *Driver of 1267 Up S.Q.T. Train (Shri Mohammad Siddique)*.—On the 21st of July, 1962, Shri Mohammad Siddique was the Driver of the engine of the 1267 Up S.Q.T. train. As already discussed, he shunted his train to the Down Main line under the instructions of the Assistant Station Master and under the supervision of the Guard of the same train. This was done by him in accordance with the Railway Rules.

76. After his train had come to the Down Main line, it was his duty to dim the head-light of the engine and to check whether the buffer red lights were burning properly. He had told us that he checked the buffer red lights, which, according to him were

burning red at that time and that he dimmed the head-light of the engine. The West Cabinman, Shri Ram Autar, has told us that he was unable to see any light on the engine of 1267 Up S.Q.T. train. Shri Braganza, Driver of the 6 Down Main train has stated that he was looking towards Dumraon station when he was approaching it and that he did not see any head-light on the engine of 1267 Up S.Q.T. train. He says that he noticed the engine as a black object only when he was only about fifty yards from it. No other person appeared before us who was in a position to say whether the head-light of the engine of 1267 Up S.Q.T. train was on or not or in dimmed position and whether the buffer red lights were burning or not. We do not consider it necessary to give any definite finding on this matter.

77. In view of this discrepant evidence, we decided to have a visual check of the position by travelling on an engine in night time from Buxar to Dumraon. We found that even if the standing engine light had been burning but dimmed the Driver could not have seen that the engine was standing on the Down Main line till he had reached within 706 feet of the standing object (*vide* our Inspection Note as Annexure 'B'). Shri Braganza has told us that he was travelling at 52 miles per hour and that he could have avoided the accident only if he could have seen the object when he was at a distance of 2,500 to 3,000 feet. He says that he saw the obstruction, however, when he was only 150 feet away, and even if the head-light of the engine of 1267 Up S.Q.T. train had been kept 'ON', he would have seen the head-light from a longer distance but it would not have been possible to distinguish on which line the engine was standing. Thus the accident became inevitable when the 6 Down Mail train came at the speed of 52 miles per hour even if the head-light of the engine of 1267 Up S.Q.T. train had been dimmed. If Shri Braganza had been able to see the standing engine earlier, that is from 706 feet. even then the accident could not have been avoided and its severity would not have been appreciably affected. It follows, therefore, that even if Shri Mohammad Siddique had omitted to keep the head-light of the engine and the red buffer lights burning, the accident could not have been avoided. In the circumstances, we are of the opinion that Shri Mohammad Siddique is in no way responsible for the accident.

78. *West Cabinman, Dumraon (Shri Ram Autar).*—Before dealing with the conduct of the West Cabinman, it is only proper to say that it was unfortunate that criminal case had been started against him and the East Cabinman, under Section 101 of the Indian Railways Act and under Section 304-A of the Indian Penal Code in the criminal court. Naturally, thereafter these Cabinmen became reluctant to appear before us as they felt that any narration of events by them at this stage may subsequently prejudice them in a criminal court if they are later prosecuted for these offences. They, however, agreed to make a statement before us in camera when the Commission gave an assurance that the report, so far as they are concerned, will not be made public until criminal proceedings against them, if any, are over and that they will not be prejudiced in any way in their defence in a criminal court. In spite of these assurances and in spite of the fact that they have made statements before us, the Commission feels that the Cabinmen may not have disclosed all the facts which may exculpate them so that their defence before the criminal court may not be prejudiced.

79. We wish to make it absolutely clear that our observations and conclusions relating to the conduct of these Cabinmen are limited to the evidence before us. Our proceedings are of a very different character from the proceedings that take place in the courts of law. Our function and our approach to the production and appreciation of evidence are materially different from those of criminal courts.

80. Before dealing with the conduct of the Cabinmen, it will be convenient to describe the relevant rules for reception of the trains at a station. The relevant General Rules are :—

G.R. 237.—"*Essentials of the Absolute Block System.*—(1) Where trains are worked on the Absolute Block System—

(a) No train shall be allowed to leave a Block station unless permission to approach has been received from the Block sation in advance, and

(b) On double lines such permission shall not be given unless the line is clear not only up to the first stop signal of the Block station at which such permission is given but also for an adequate distance beyond it.....

(3) The distance referred to in Sub-Rule (1) (b) shall not be less than one quarter of a mile unless otherwise directed by approved special instructions."

G.R. 238.—"*Conditions under which permission to approach may be given at an 'A' Class station on Double line.*—The line shall not be considered clear, and permission to approach shall not be given, unless—

(a) the whole of the last preceding train has arrived,

(b) all signals have been put back to 'ON' behind the said train,

(c) the line on which it is intended to receive the incoming train is clear up to the starter, and

(d) all points have been correctly set and all facing points have been locked for the admission of the train on the said line."

G.R. 38.—"*Home Signals.*—(a) When a train is approaching a Home Signal otherwise than at a terminal station, the signal shall not be taken 'OFF' until the train has first been brought to a stand outside the signal, unless—

(i) (On a double line) the line is clear for an adequate distance beyond the Starter..

(b) The adequate distance referred to in sub-rule (a) shall never be less than 600 feet in the case of a station equipped with two aspect lower quadrant signals.....without the sanction of the Government Inspector....."

81. Besides these General Rules, there are Dumraon Station Working Rules, Paras 5(a), 5(b), 5d) (v), 7(g), (Iv) of which read as under:—

"5(a) *Movement of Trains*—will be controlled by the Section Controller whose orders must be promptly carried out without question provided they do not contravene any General Rule, Subsidiary Rule, Station Working Rule, Block Working Manual or Safe working."

"5(b) *Reception of Trains*:

(i) Trains will be received in accordance with General Rules 237 (i) (b), 238, 37, 38 and Subsidiary Rules 237 B and 38.

(ii) After fulfilling the conditions of granting "Permission to Approach" and after having given line clear for an Up or a Down train, the Cabinman concerned will obtain slots for lowering of Approach signals from the cabin at the other end of the station confirmed by exchange of private numbers.

(iii) For a stopping passenger, Van Goods, work train or any through train to be stopped for any reason, the Cabinman of the receiving cabin having granted line clear will immediately advise the Station Master on duty who will comply S.O. 56 if required and exchange private numbers with the Cabinman concerned which should be recorded in their respective Log Registers.

(iv) The Cabinman at the receiving Cabin on receipt of slot from the other cabin will lower the necessary approach signals for reception of train, after fulfilling the required condition.

(v) All messages exchanged between the Station Master on duty and the cabins or between cabins either for reception of trains or for shunting purposes must be confirmed by exchange of private numbers and recorded in the Log Registers at each point."

"5(d) (v)—Private numbers must be exchanged between the cabins and with the Station Master on duty when shunting involves the use of running lines and recorded in their respective Train Signal Registers and the Log Book of the Station Master."

"7(g) (iv)—Cabinman on duty will not give slot or lower signals for reception of a train on any line when view is obscured unless an assurance has been obtained from the Station Master on duty that the line is clear by exchange of private numbers.

There is then Appendix "A" to the Station Working Rules. Para 4 of this Appendix reads—

"4". The Cabinman on duty is responsible for the correct working of the Block Instruments and lever frame for obtaining the 'Authority to Proceed' and granting 'Permission to Approach' and the train passing duties in general. He will maintain the Train Signal and Log Registers and Relief Diary. The Cabinman on duty must see that the General & Subsidiary Rules 36 are strictly complied with. He will see that no unauthorised person enters the cabin and interferes with any of the telephones or Block Instruments. He

will attend to the cleaning and polishing of the lever handles and keep the cabin clean and tidy. He shall not while on duty, leave his post of duty until relieved by some competent person and then only with the permission of the Station Master on duty. Cabinman West Cabin will be responsible for the working of the Level Crossing Gate No. 67 at his end.

NOTE.—If a Cabinman's turn of duty expires after Permission to Approach has been given or received for a train he is not to go off duty till he has given or received the 'Train Out of Section' of that train *vide* Subsidiary Rule 330(a)."

83. From these Rules, it is clear that the reception and despatch of trains is entirely the responsibility of the Cabinmen and if the safety of a train or if the violation of any of the Rules, mentioned above, is involved in any instructions given by the Section Controller or the Assistant Station Master or any other authority whatsoever, the Cabinman is under an obligation to ignore such instructions. At Dumraon station the two Cabinmen are responsible for the correct working of the Block Instruments and lever frames, for granting "Permission to Approach" and to "Proceed" and for train passing duties in general.

84. Cabinmen are not directly recruited. The direct recruitment is in the categories of Porters, Lampmen, etc. They are then promoted to the post of Pointsman, and after going through a fortnight's course in the Sealdah Training School, they may be appointed as Leverman if they pass the qualifying test. For promotion from Leverman to Cabinman, they have again to attend the Sealdah Training School for one month and to pass the qualifying test. A Leverman after getting training for one month in the Sealdah Training School, is granted a Competency Certificate in token of his competency in operation of Block Instruments and in passing trains generally. It is only after obtaining the Competency Certificate that a Leverman is appointed as Cabinman. The Cabinmen are required to make entries in Registers in English, but no minimum educational qualification is laid down for them. These entries in the Registers required to be kept by them relate to time, Train Number, Names of Lines, for example, Main or Loop, and simple words like "Line Blocked", "Line Cleared" and "Section Blocked Back" etc.

85. Shri Ram Autar joined the railway service on the 1st of March, 1950, as a Porter. He was then appointed as Pointsman on the 5th January, 1953. After the necessary training and after obtaining the required proficiency certificate, he was appointed as Cabinman on the 14th of March, 1956. He was soon after posted at Dumraon station and has since then been working in the West Cabin of the Dumraon station. About 50 trains pass the Dumraon station every day and, therefore, it must be considered to be a fairly busy station. There have been no major accidents nor any accident of the type with which we are concerned during the time that Shri Ram Autar has been working as Cabinman at this station. In these circumstances, Shri Ram Autar must be considered to be a fairly experienced Cabinman. His competency certificate was renewed on 8th October, 1960, by the Transportation Inspector, Buxar.

86. We may now briefly recapitulate the steps that Shri Ram Autar took relating to the shunting of 1267 Up S.Q.T. train to the Down Main line and relating to the reception of 6 Down Mail train on the same line.

87. The entries in his Log Register show that during shunting operations of the 1267 Up S.Q.T. train the Up Main line was duly cleared and the Down Main line was blocked. There is however, no entry in the Train Signal Register to the effect that the Down Main line had been blocked by the 1267 Up S.Q.T. train. Under the Rules, it was obligatory on his part to make entries relating to the blocking of Down Main line in the Train Signal Register, but he omitted to do so.

88. As regards the reception of the 6 Down Mail train normally like all other non-stopping trains its scheduled reception line is the Down Main line. At 21.40 hours the Cabinman of the Baruna station approached Shri Ram Autar for line clear. He gave the line clear for the Down Main line at 21.41 hours and received the "Train Entering Section" message from Baruna at 21.44 hours. Shri Ram Autar at that very time asked for a slot from the East Cabinman and received it at 21.45 hours for the Down Main line. These facts are supported by the entries in his Train Signal Register and Shri Ram Autar has not only confirmed the correctness of these entries before us but also that they were written by him. After receiving the slot the West Cabinman has admitted that he had lowered the Down Warner and the Down Home signal and also closed the level crossing for the reception of the 6 Down Mail train on the Down Main line. This is confirmed by the fact that when the Station Master, Shri Chawla, visited this Cabin after the accident, the position of levers showed that the signals for the reception of the 6 Down Mail train on

Down Main line were lowered. Shri Lal Mohar, Junior Linesman, Bihar Electricity Department, Dumraon, has also stated that he saw the Down Main Home signal in 'OFF' position just before the 6 Down Mail train reached the Dumraon station. This also has been stated by Shri Braganza, the Driver of the Mail train. The Mail train was not stopping at Dumraon station but had to pass through it. Signals were lowered accordingly and the train came at the speed of 52 miles per hour straight on the Down Main line and collided against the engine and train of 1267 Up S.Q.T.

89. The explanation given by the West Cabinman for lowering signals for the occupied line are :—

(i) That the Assistant Station Master when blocking the Down Main line with 1267 Up S.Q.T. train had assured him that the 1267 Up S.Q.T. train will complete its work quickly and that it will vacate the line quickly. Therefore, when the East Cabinman gave the slot for the Down Main line, he thought that the 1267 Up S.Q.T. train had been shunted to the Down Loop line and that the Down Main line was no longer occupied;

(ii) That he was unable to see the head-light of the engine of 1267 Up S.Q.T. train at the time when 6 Down Mail train was due to reach Dumraon station, and, therefore, he was unable to see any obstruction on the Down Main line and this confirmed him in his view that the Assistant Station Master's assurance that the 1267 Up S.Q.T. train will be removed quickly, has been implemented and that the Down Main line now was clear to receive the 6 Down Mail train.

(iii) That it was for the East Cabinman to give the slot for a particular line and the train is received on that line. In the present case, the East Cabinman had given the slot for the Down Main line and accordingly he had lowered the signals for receiving it on the Down Main line.

90. Shri A. K. Dutt, Counsel for Shri Ram Autar argued before us that it was for the East Cabinman in the present case to nominate the line and the West Cabinman was bound to accept it. In short, in his defence he had thrown the responsibility of the accident on the Assistant Station Master and on the East Cabinman.

91. In the context of safety of travelling public and of trains the first explanation is absurd and frivolous. The Assistant Station Master denies that he ever gave any such assurance to the West Cabinman, Shri Ram Autar. There is no other person who could have possibly any knowledge whether any such assurance was or was not given. It is not necessary to decide whether Shri Ram Autar is telling the truth in saying that he was given this assurance by the Assistant Station Master because even if any such assurance had been given it would not absolve the Cabinman from his responsibility. The alleged assurance given by the Assistant Station Master was to the effect that the Down Main line would be vacated quickly and even on his own statement it was up to Shri Ram Autar to ensure that the line has been so vacated, before he gave Line Clear for 6 Down Mail train. Moreover, Shri Shahid Ali Khan has told us that 1267 Up S.Q.T. train could not have been moved to the Down Loop line or to any other line without the instructions of the Section Controller. If that be so then it is improbable that the Assistant Station Master gave such assurance, as it was not within his control to move this train from the Down Main line as and when he desired. If the 1267 Up S.Q.T. train had been shunted to any of the lines, then the West Cabinman was bound to be informed by the Assistant Station Master of such a movement after exchange of private numbers. The 1267 Up S.Q.T. train was on the Down Main line and could be taken to the Down Loop line either from the area under control of the West Cabinman or from the area under control of the East Cabinman. If it had been shunted through the area of the West Cabinman then obviously he would have known about it, because then he would have had to set the necessary points. If it had been shunted to the Down Loop line from the East Cabin area then after the Down Main line had been cleared he was bound to be informed by the Assistant Station Master after exchange of Private Numbers that the Down Main line is clear. Nothing was done in the present case. Therefore, it is impossible to accept the explanation of Shri Ram Autar that he did not know at the time of lowering the Down Main Home signal that the Down Main line was occupied by 1267 Up S.Q.T. train or that he thought on this vague assurance that he could receive the 6 Down Mail train on the Down Main line without any further communication from the Assistant Station Master. We have absolutely no hesitation in rejecting this explanation.

92. The next point taken by Shri Ram Autar is that he was unable to see the head-light on the engine of 1267 Up S.Q.T. train and, therefore, he thought that the Down Main line was clear. There is no doubt that this light would have served as a visual check

to the West Cabinman but the fact remains that he knew or at least should have known because of his experience that 1267 Up S.Q.T. train cannot leave the Down Mail line without this information being given to him by the Assistant Station Master after the exchange of Private Numbers. In any case under Rule 7(g)(iv) of the Dumraon Station Working Rules, if the Cabinman was in doubt he was under an obligation to check up the position with the Assistant Station Master on duty. The possibility that he was deprived of the visual check cannot possibly be held to absolve him from his obligation to look at his registers before lowering the Down Main Home signal. The Log register showed that the Down Main line was blocked.

93. Shri Ram Autar's allegation that it was for the East Cabinman to nominate the line at the time of giving slot for the Down Home signal is not borne out by any specific Rule to that effect. Reading the Rules as a whole, and in particular Rule 5(b)(ii) of the Station Working Rules, it appears that when asking for the slot it was the duty of the West Cabinman to see which Down line of the two was clear for reception of the 6 Down Mail train and then obtain slot for that clear line. In other words, to start with, the West Cabinman had to nominate the line and ask for the slot for that line. If the East Cabinman refuses to give this slot on some valid ground then the West Cabinman would take appropriate steps to allot another line for the reception of the train, if it is at all possible. There is, however, no specific rule in so many words on this subject. From formal evidence and from informal talks we gather that the rules relating to duties of Cabinmen have always been read as laying down that when a Cabinman of a station like Dumraon asks for a slot from the other Cabinman before lowering the Home Signal, then he asks for a slot for a particular line. In short, this has always been the practice and this practice has never been doubted and what is more has never caused confusion. The evidence produced before us shows that when the Cabinman asks for a slot then he asks for the slot of a particular line. If, however, that line is not free to receive the train on the other side then the other Cabinman must inform him that the said train cannot be received on that line and thereafter they consult each other and then slot is given for the line which is clear for the reception of the train. This is the only way that this system can work and we have no doubt in our mind that the West Cabinman knew this system when he was lowering the Down Main Home signal. It was his duty to indicate the line on which the 6 Down Mail train had to be received. It is, however, possible that he may have asked the East Cabinman if the Down Main line was clear and on receiving his reply he may have thought that giving of the slot for the Down Main line by the East Cabinman was in order. Even in such a case he should not have lowered the Down Main Home signal because to his knowledge and according to entries in his Log register it was occupied by 1267 Up S.Q.T. train and he had received no intimation from the Assistant Station Master that 1267 Up S.Q.T. train had been shunted from that line to some other line. This explanation, therefore, also fails.

94. Shri Ram Autar in the course of his statement has stated that according to the practice at this station, the Cabinman giving the slot nominates the line. There is no other evidence besides his own *ipso dixit* on this alleged practice. It is impossible to accept this assertion of Shri Ram Autar, particularly when it is opposed to the prevailing practice. We are of the opinion that this alleged practice, as stated by Shri Ram Autar, has not been proved. Shri Ram Autar when in the witness box complained that the rules relating to his responsibility had never been explained to him, nor had he been supplied a copy of the rules in a language that he could read. When it was brought to his notice that he had signed the Assurance Register, which is to be signed after understanding the relevant rules, he stated that the rules were, in fact, not read out to him, and that he had signed the Assurance Register without reading it, as is generally done by most employees. The Station Master has denied this allegation against him. Whatever be the truth the fact remains that the West Cabinman's action at the time under consideration, was not due to any ignorance of rules. He had been passing trains at this station from this very Cabin successfully for five to six years and even if he did not read the rules, there is no doubt he knew them.

95. The Learned Counsel for Shri Ram Autar in the course of his arguments had suggested that there was a conspiracy to implicate the two Cabinmen falsely and in particular the West Cabinman and in this connection he referred to the various corrections made in the Registers, etc. which we have already noticed. There is, however, no evidence in support of this suggestion of conspiracy and these corrections in Registers by themselves cannot possibly establish such a conspiracy.

96. Shri Ram Autar did not complain of his conditions of service, nor of fatigue because of unduly long hours of work. It is, therefore, not necessary to discuss this aspect of the matter in this report.

97. We are clearly of the opinion that the West Cabinman is responsible for this accident which was caused by his lowering the Down Main Home signal and Down Warner for reception of the 6 Down Mail train on the Down Main line which was occupied by 1267 Up S.Q.T. train.

98. *East Cabinman, Dumraon (Shri C. P. Singh).*—Shri C. P. Singh joined the railway service on the 11th of October, 1943, as a Porter. He was appointed Pointsman on the 21st of December, 1945. He was promoted as a Cabinman on the 24th February, 1950, after receiving the necessary training and after passing the Proficiency Test. Ever since his appointment as Cabinman he has been working in the East Cabin of Dumraon station. Therefore, he has been working in this cabin for 12 years and must be considered to be an experienced Cabinman.

99. On the 21st of July, 1962, his shift duty started from 16 hours and he was due to remain on duty till mid-night. He was, therefore, on duty at the time of accident, under consideration.

100. Shri C. P. Singh collaborated with Shri B. D. Sahai, Assistant Station Master on duty, in shunting the 1267 Up S.Q.T. train from the Up Main line to the Down Main line because the cross-over is on his side. We have already held that this shunting was done in accordance with rules. In the Log Register he first wrote "Down Main Line Clear" and then scored out "Down" and wrote "Up". Thus the entry as it now stands shows that the Up Main line was clear. This is the same mistake as the Assistant Station Master had made in his Register and it has been similarly corrected. Shri C. P. Singh has stated that he made this correction immediately. The entry saying that the Down Main line is blocked supports this statement of his. There is no entry in the Train Signal Register relating to the shunting operation. Under the rules, he should have made entry in the Train Signal Register to the effect that the Down Main line was blocked. This is a curious co-incidence that just like the West Cabinman he also did not make this important entry in his Train Signal Register. It is, however, not the case of Shri C. P. Singh that the wrong entry, which was then corrected, in the Log Register or absence of the entry in the Train Signal Register in any way affected his conduct at the time of giving the slot for the 6 Down Mail train.

101. Regarding the 6 Down Mail train, Shri C. P. Singh has made no entry in his Log Register, nor is it required under the rules. His Train Signal Register shows as originally written that the slot was given for the Down Main line for the reception of the 6 Down Mail train. There is then an over-writing on the word "Main" and it is made to read "Loop". He has also given Private Number for the tail lamp of 6 Down Mail train to the West Cabinman indicating thereby that the train has passed through the Station complete.

102. From these entries it is clear that Shri C. P. Singh gave slot for the Down Main line to the West Cabinman and lowered the Down Main starter signal. This he has admitted before us. His explanation, in substance, is that at about 21.40 hours the Section Controller had been repeatedly asking him to get the Station Master to explain to the Section Controller why 71 Up was being detained so long. In the meanwhile, the West Cabinman informed Shri C. P. Singh that 71 Up had left the station and he himself had also seen its receding tail lamp. According to Shri C. P. Singh, he then closed the Twining Ganj-Dumraon section. He further has stated that the Section Controller was throughout this period insisting that the Station Master should contact him. In the meanwhile, the West Cabinman told him that the 6 Down Mail train had left Baruna and then he asked for slot for the Down Main line for passing it. He says that he protested because to his knowledge the Down Main line was blocked. In spite of his protests, Shri Ram Autar insisted for the slot for the Down Main line and also insisted that 1267 Up S.Q.T. train had been shunted to the Down Loop line. Shri C. P. Singh then proceeds on to say that his efforts to contact the Assistant Station Master failed and ultimately he admits that he gave way to Shri Ram Autar and gave the slot for the Down Main line. In short, his explanation is that he was so busy at that time that he got confused with Shri Ram Autar's insistence and that he complied with his instructions and gave the slot for the Down Main line and lowered the Down Main starter and Down advanced starter.

103. As has already been stated, the Assistant Station Master shortly after the accident, had gone to the East Cabin where he had found Shri C. P. Singh. Shri B. D. Sahai (Assistant Station Master) then took the registers into his possession. The Train Signal Register of the East Cabin shows that there has been effort to change the entry to indicate that the slot was given for the Down Loop line. The statement of Shri B. D. Sahai

shows and proves that at the pointing of the Guard of the 1267 Up S.Q.T. train he had noticed the Main starter in lowered position just before the accident took place. From these facts, it is clear that Shri C. P. Singh had given slot for the Down Main line as stated by him before us.

104. Shri C. P. Singh has also admitted before us that he himself had changed all these entries and had changed the position of the levers so as to give an idea that he had really lowered the signals for the Down Loop line. After the accident when other Officers had gone to his cabin later on they had also found that the position of the levers indicated that they had been pulled for the Down Loop line. It is, therefore, clear that the East Cabinman had given slot for the Down Main line for the reception of the 6 Down Mail train when he knew that it was blocked by 1267 Up S.Q.T. train; further that subsequently he had tried to destroy the evidence that he had given slot for the Down Main line.

105. His explanation throwing the responsibility on the West Cabinman cannot help him. Assuming that the West Cabinman had told him at the time of asking for the slot that the 1267 Up S.Q.T. train had been shunted to the Down Loop line, it was his duty nevertheless to check the position from his register as under the Rules the Assistant Station Master had to give this information to him after exchange of Private Numbers and not the West Cabinman. His register showed that the Down Main line was occupied and if the statement of the West Cabinman made him doubtful then also he had to get confirmation regarding this matter from the Assistant Station Master. He has stated that he tried to contact the Assistant Station Master, but failed. In such a case he could not act against entries in his register and could not give slot for a line which according to his register was in occupation of 1267 Up S.Q.T. train. In this context it is not necessary to decide whether or not the visual check of tail lamp of 1267 Up S.Q.T. train was available to him. It, therefore, follows that by giving the slot for the Down Main line for the reception of the 6 Down Mail train on the 21st of July, 1962, he violated the Railway rules.

106. He has also been guilty of making efforts to destroy evidence so that in future he may be able to save himself from a charge of responsibility.

107. It may be stated here that Shri C. P. Singh did not complain of the conditions of service, nor of unduly long hours of work, nor of fatigue. It is, therefore, not necessary to discuss this aspect of the matter.

108. In conclusion, we find that Shri C. P. Singh is responsible for this accident. We further find that some time after the accident he tried to destroy evidence which indicated his responsibility for it.

109. *Driver of 6 Down Mail Train (Shri L. Braganza).*—On the 21st of July, 1962, Shri L. Braganza was the Driver of the 6 Down Mail train when it met with the accident, under consideration. He has stated that the signals lowered for the passing of the 6 Down Mail train through Dumraon station, were for the Down Main line. According to him, he was going at a speed of 52 miles per hour. In reply to a question, he stated that he could not have exceeded this speed of 52 miles per hour because there was not sufficient distance from Buxar station where he had stopped last, to attain a higher speed. Therefore, Shri Braganza was going at a speed which was within the Rules. As already discussed, the signals lowered for reception of the 6 Down Mail train were for Down Main line and, therefore, he was within the Rules to come to that line at that speed. He has told us that he noticed that the Down Main line was occupied, from a distance of 150 feet from the obstruction.

110. In order to appreciate his statement regarding visibility, the Members of the Commission travelled on the foot-plate of an engine from Baruna so as to find out the distance from which an obstruction on the Down Main line of Dumraon station, could be seen at night time by the Driver. It was found that the Driver standing on the right side of the engine could see the obstruction from a distance of 706 feet and also distinguish the line on which the obstruction was. At a speed of 52 miles per hour, it would require a train ten seconds to travel the distance of 706 feet and if we allow a few seconds for the Driver's reaction and for him to realise that he is coming head-on to an obstruction it would give him only six or seven seconds in which to take steps to stop the train and avoid the accident. Obviously, this margin is too small to enable the Driver even to reduce the speed appreciably.

111. Evidence was led before the Khosla Commission which enquired into "The Causes Of The Accident To 1 Down Bombay-Calcutta Mail Between Padali And Asvali, Central

Railway, On 23rd November, 1957" regarding braking distances of W.P. engine hauling 10 and 12 bogies. It was stated that with emergency application of brakes the braking distance on level track for a W.P. engine hauling 12 bogies at 55 miles per hour would be 3,120 feet. The above braking distance compares fairly well with the statement of Shri Braganza, Driver of 6 Dn. Mail train that it would have required 2,5000 to 3,000 feet to stop his train, which was travelling at 52 miles per hour. It was, therefore, impossible for Shri Braganza to avoid the accident whatever he may have done. We accordingly find that Shri Braganza was, in no way, responsible for this accident.

CHAPTER IV

SUGGESTIONS FOR SAFEGUARDS AGAINST SIMILAR ACCIDENTS IN FUTURE

112. In accordance with item (c) of the terms of reference, the Commission is required to suggest remedial measures which would eradicate or minimise the recurrence of accidents of the type which took place at Dumraon on 21st July 1962.

113. In the present case the Commission is concerned with an accident brought about by reception of a Mail train running at 52 miles per hour on a line blocked by a Goods train at Dumraon station. We have come to the conclusion that the accident was due to the fact that the Cabinmen did not act according to the prescribed rules. We have already enumerated these rules and have discussed them. The Cabinmen concerned failed to set the appropriate points and in fact lowered the signals for reception of the train on the occupied line. There can be no doubt that these mistakes were not made by them because of ignorance of the relevant rules and can only be ascribed to peculiar momentary reaction to a situation which was fairly normal to them and what is very curious is that both the Cabinmen concerned made the same type of mistakes at that crucial moment. Such a mistake is generally characterised as human failure. Now such a failure cannot possibly be completely eliminated. After all, rules have to be observed and mechanical devices have to be operated by human beings and all human beings are liable to make mistakes. Effort can, however, be made to minimise the incidence of such errors and one way is to obtain aid of electrical and mechanical devices. Another way is to scrutinise the adequacy of the present rules and discuss their implementation.

114. *Electrical and Mechanical Devices.*—To discover some electrical and/or mechanical devices which would minimise human error, the Commission consulted the following persons at Delhi and recorded their evidence and held discussions with them:

1. Shri D. C. Desai, Commissioner of Railway Safety.
2. Shri A. K. Gupta, Additional Commissioner of Railway Safety, Calcutta.
3. Shri S. Sen, Retired Chief Signal and Tele-communication Engineer.
4. Shri Jagjit Singh, Director, Traffic (T), Railway Board.
5. Shri L. C. Mohindra, Director, Signal and Tele-communication, Railway Board.
6. Shri K. K. Mukerji, Chief Operating Superintendent, Eastern Railway.
7. Shri R. D. Stephenson, Chief Signal and Tele-communication Engineer, Eastern Railway.

115. The electrical and mechanical devices required should be such as would serve as an automatic safeguard against lowering of reception signals on a line which is already in occupation of a train or a vehicle or vehicles. All these experts without any dissent or reservation of any kind told us that this objective can be completely achieved by adoption of track-circuit. The basic principle of track-circuiting is to have an electric current from a battery flowing along the rails on one side of a section through a relay and back through the rails on the opposite side to the battery. A vehicle standing on the track would short-circuit the current and thereby the relay drops. In other words, the relay is an indication whether the track is clear or occupied. The relay may be made to control any number of circuits thus providing the required control on points or signals. This is the basic principle of track-circuiting but various elaborations in the method of working can and have been introduced. It will be seen from the above that the material of the sleepers supporting the rails should be non-conductive. The chief types of sleepers in use on Indian Railways are wooden, steel and cast iron. Concrete sleepers have also been introduced and are being used to a limited extent. Steel and cast iron sleepers which are the predominant variety are unsultable for use in track-circuits.

116. We are informed that the track-circuiting of Indian Railways was taken in hand thirty years ago and that this is being carried out on a programmed basis. According to the information available to us, 90 large stations on the entire Indian Railways system

have already been track-circuited while limited track-circuit has been installed in 15 stations in addition to track-circuits for automatic signalling. On the Eastern Railway 32 large stations have been track-circuited and it is being installed at 6 other stations.

117. The efficacy of this device was brought to the notice of the Railway Accident Inquiry Committee which was constituted on 20th January, 1954, and is known as "Shahnawaz Committee". In its report dated 30th April 1954, the Committee observed that "another safety provision which is essential at large stations where intensity of passenger train services is heavy and where considerable shunting is involved is the track-circuiting of passenger lines". The Committee recommended that 'at large stations track-circuiting should be provided'.

118. The Commission understands that suitable wooden sleepers in sufficient quantities are not yet available and that suitability of concrete sleepers is not yet established on Indian Railways. The Commission is informed that the French Railways have used concrete sleepers and on the Japanese Railways these are beginning to be introduced. The use of concrete sleepers as an alternative to wooden sleepers in track-circuits is being considered on the Indian Railways and an officer has been placed on special duty for the purpose. We have been informed that Research Designs and Standards Organisation is obtaining necessary information regarding efficacy of asbestos concrete sleepers from the Italian Railway where such sleepers have been tried for track-circuiting. It appears that manufacture of material for relays has only recently started in this country and we feel that this material will soon be fully available in our own country. Till these difficulties are overcome, it is obvious that there is very little chance of track-circuiting being introduced at road-side stations like Dumraon in the near future.

119. The Commission has, therefore, given due consideration to alternative suggestions placed before it. These alternative suggestions must necessarily not only be economic but also be effective to detect occupancy of the reception line all along the line and should provide automatic safeguard against lowering of reception signals on an occupied line. It should also be effective even where a vehicle or vehicles are obstructing the reception line.

120. Shri D. C. Desai, Commissioner of Railway Safety, has been in correspondence with foreign railways to discover such alternatives. He has produced this correspondence before us and we have discussed all these suggested devices with him. These devices are :—

(A) *Devices mentioned by the French National Railways* :

(i) *Electronic treadle.*—French Railways are about to complete tests and they say that the prospects are brilliant.

(ii) *Luminous beam control, including photo-electric cells.*—French Railways say that they resort to it chiefly in marshalling yards.

(iii) *Axle-counter device.*—The French Railways remark that axle-counter devices are certainly good in principle but become very intricate when they have to comply with all the requirements of track-circuiting. They further add that these are likely to be very costly and will not bear comparison with track-circuits as an equipment at way-side stations.

(iv) *Inductive device at the tail-end of trains.*—French Railways state that several French manufacturers have worked out the above device though the French Railways have not resorted to it so far. They state that it consists in installing at the tail of the train an inductive device which when passing influences a track receiver thus confirming that the whole train has cleared the section.

(B) *Devices mentioned by the Japanese Railways*:

(i) *Track-circuit.*—The Japanese Railways state that from the standpoint of dependability as well as economy, it would be hard to realize train detection without resorting to track-circuit, that is without using wooden sleepers or insulation pads, on reception lines at way-side stations. In Japan it is the standard practice to use wooden sleepers and recently concrete sleepers are beginning to be introduced, but hardly any iron sleepers are laid. The Japanese Railways have, therefore, no difficulty in using track-circuits.

(ii) *Axle-counter method.*—Japanese Railways recommend this device as being more advantageous than other methods. They add that this method has not been use in Japan.

(iii) *Light beam or radar speedometer method.*—In the opinion of Japanese Railways this method in use in U.S.A. for goods yard automation will be suitable for Indian purposes if minor modifications are made.

(iv) *Ultrasonic method.*—The Japanese Railways state that this method is not being employed in Japan.

(C) *Devices mentioned by the General Railway Signalling Company of U.S.A.*

(i) *Photo-cell Organisation.*—The G.R.S. Company says that this has proved useful in goods classification yards in detecting the presence of cars. The Company has no specific publication describing this particular device in as much as it is commonly integrated with a complete control system, and does not usually merit any specific treatment in a publication because it is so well known and relatively simple in principle.

(ii) *Over-lay track-circuits.*—The G.R.S. Company says that these do not require insulated joints to insulate one section of track from another. The rails, however, should be on wooden sleepers or at least insulated from other types of sleepers.

(iii) *Ultrasonic presence detector.*—The G.R.S. Company has stated that track-circuits provide detection over a large area of track. When more precise pin-point detection is required they have used the ultrasonic detector. The Company adds that in goods classification yards it became necessary to distinguish between long and short wagons and the ultrasonic detector solved the problem. The Company further states that it is desirable to keep such circuits as short as possible and that the ultrasonic detector is operated in parallel with the existing track circuit. Also, that it is being investigated whether the detector can be used alone without a track-circuit to achieve positive detection of the presence of rolling stock in a given track area. No literature on this subject is available.

121. On going through the correspondence and after discussing with Shri Desai, we find that Electronic treadle is still in an experimental stage. Inductive device at the tail-end of trains mentioned by the French Railways and the ultrasonic method mentioned by the Japanese Railways have not been used on those Railways. Light beam or radar speedometer method, Ultrasonic presence detector, luminous beam control including photo-electric cells and photo-cell organization are used in marshalling yards, probably for a purpose different from our requirements and it is not known whether these will be useful for our purpose with suitable adaptation, if that is at all possible. Sufficient details are not available at present to judge their suitability. The axle-counter method has not been used in Japan while the French Railways do not seem to favour it *vis-a-vis* track-circuits. Sufficient details are not available regarding overlay track-circuits but it is clear that insulation is required between rail and sleepers as in conventional track-circuits. The Japanese Railways consider that from the standpoint of dependability and economy, track-circuit is the best and they have no difficulty in their use.

122. Besides the suggestions discussed above Shri Desai made two further suggestions:

(A) *Sequential Mechanical Locking.*

Shri Desai states that although this appears to be a satisfactory method of ensuring safety, this will not detect a vehicle left on the running line after the departure of a train which may operate the entrance and exit treadles. He also states that its cost is comparatively high, and ways and means of reducing the cost will have to be found. On account of these limitations we do not consider this to be a suitable method.

(B) *Audio-frequency electronic transistorised track-circuit.*

Shri Desai states that—

This has been developed in Japan and France and may be used in India. This track-circuit consumes very little current and works on dry cells only. No wet batteries are required and maintenance is very much simplified. The Japanese National Railways have successfully developed an audio-frequency track-circuit for long distances which will cover the longest reception line at wayside stations on Indian Railways. The General Railway Signalling Co. of U.S.A. and French manufacturers have also developed similar systems suitable for use on long lengths of track. The foreign exchange required for importing transistors to be employed in this circuit will be negligible. The conventional track-circuit is not suitable for extensive use at a large number of wayside stations on account of the high standard of maintenance and power required for its operation. The

electronic track-circuit is eminently suitable for wayside stations on account of its very low power requirements, little maintenance and high reliability.

The Director, Signal and Tele-communication, Railway Board, has observed—

The conventional track-circuits are in use on the Indian Railways for more than 30 years and the maintenance of such track-circuits does not offer any difficulties which cannot be surmounted. The problem of scarcity of wooden sleepers which is applicable to the conventional track-circuits equally applies to electronic track-circuits. Trials are already being conducted by the Research Designs and Standards Organization in the use of short track-circuits. Long range track-circuits, such as required for track-circuiting of reception lines, have not yet been tried on the Indian Railways but it is felt that the cost involved will be the same as for conventional track-circuits and the maintenance problem will also be in no way simpler. Research Designs and Standards Organization has been advised to further examine the provision of audio-frequency track-circuits.

123. We feel that there is a case for considering this system as an alternative to conventional track circuits and for investigating the comparative advantages and costs of both the systems. We hope that further examination will be carried out by the Research Designs and Standards Organization and it will be expedited.

124. Subsequent to our discussions with Shri Desai and other officers on the suggestions made by Shri Desai, he has sent a letter containing other suggestions. As the report was being finalised, we could not, therefore, consider these suggestions and these have been included as Appendix VIII (Pages 135 to 143) to Volume* III of the evidence.

125. Shri S. Sen, Retired Chief Signal and Tele-communication Engineer, has made two suggestions. His first suggestion is to provide at the entrance and exit of each reception line, *i.e.*, near the fouling marks, short lengths of track-circuit and rail-circuit, rotational locking between the Starter and the Advanced Starter, shunt signal at the trailing-end of the reception line and provision of key locks on Starter and shunt signal levers in cabins to be transmitted to the Assistant Station Master before he authorises any shunt move.

126. The Commission discussed this suggestion with the officers concerned. It does not appear to be an adequate substitute for the conventional track-circuit. If in the course of a train movement or a shunting movement a vehicle or part of a train is left behind it loses protection. If a part load has to be shunted out from a reception line, it will have to be done without the lowering of any signal and this will lead to further shunting complications. Additional levers would be necessary for the shunt signals and if the lever frame has no spare levers, the existing lever frames may have to be changed. The cost of signalling and electrical material is expected to be three or four times the cost in conventional track-circuit.

127. It will be more convenient to discuss later Shri Sen's second suggestion to provide Station Master's control on Home signals in certain circumstances.

128. As already stated the outcome of discussions at Delhi was that in the present state of knowledge and experience of the Indian Railways the conventional track-circuit using wooden sleepers is the only suitable method for ensuring complete safety against the inadvertant acceptance of a train on an occupied line, by providing an automatic safeguard against the lowering of a wrong signal. The Shahnawaz Committee has also approved of the adoption of this device at large stations.

129. We realise that it may not be possible to track circuit roadside stations like Dumraon in the immediate future and, therefore, we suggest that the Railway Ministry should adopt partial track circuiting at roadside stations, *i.e.* on the Main line only and not on the Loop line, and that this work should be taken up as early as possible. We are making this recommendation because the consequences of an accident on the Main line are much graver than on any other running line due to the high speed at which trains travel on the Main line.

130. From our discussion with technical officers it is clear that adoption of mechanical appliances for minimising accidents by collision is exercising the minds of the advanced railway organisations of the West and we feel that this should be pursued on the Indian Railways with the same anxious care. If further research is necessary or trials have to be conducted to determine the suitability of appliances already in use in the West, we recommend that top priority should be given to these and that considerations of financial stringency should not prevail to hamper such research or investigation.

*Not published.

131. Some other mechanical devices and changes in working arrangements were brought to our notice but it will be convenient to discuss them after responsibilities of station staff etc. have been discussed.

132. During the course of inquiry, certain matters pertaining to the working of the staff came to our notice. While they may not be considered to have any direct bearing on the cause of the accident, yet we have decided to discuss them with a view to suggest possible improvements which are likely to result in their more efficient performance.

133. *Cabinmen.*—We have already come to the conclusion that the accident, under consideration at Dumraon station was caused by the mistake of the two Cabinmen, incharge of train passing duties. The Cabinmen did not complain of the conditions of service nor did they allege that at the relevant time they were fatigued or overtired. It is, therefore, not necessary to discuss the conditions of their service. They, however, complained that rules concerning Cabinmen were not supplied to them in the regional language as they were not able to read them in English.

134. As regards non-availability of rule in regional languages, we made inquiries and we were informed that the rules in regional languages have been out of print and that extracts of General and Subsidiary Rules so far as they are applicable to Cabinman have only recently been re-printed. We think that prompt action should be taken to re-print the rules whenever they are likely to get out of print or whenever correction slips are too many so that no Cabinman is ever without his own personal copy. While comparing the 1929 Hindi edition of the General and Subsidiary Rules with the Rules for Cabinman recently printed we noticed that the type in the older edition was better and bolder and we recommend that in all future prints such bold type should be utilised for ease of reading for those who do not habitually read, such as Cabinman.

135. Further, we feel that the Station Working Rules should also be translated in regional languages for easy understanding by the staff, and supplied to the Cabinmen at the respective stations. The existence of these Rule Books in regional language in the cabins would serve the purpose of a reminder to the staff as they may, while sitting alone in their spare time, turn over the pages and refresh their memory of the rules. The printing or typing and distribution of these rules is not likely to be very expensive in our opinion.

136. The General and Subsidiary Rule book in English printed in 1951 also seems to be in short supply because at the time of the inquiry the Railway authorities were unable to give a copy to the other counsels. Besides, the book has a large number of correction slips and it is time that this book is re-printed.

137. Considering the importance of train passing duties for which the Cabinmen are exclusively responsible in normal conditions, we considered the desirability of :

(i) laying down minimum educational qualification for them, say Matriculation Examination, as at present they are only required to be literate,

(ii) direct recruitment to some extent,

(iii) longer training than prevalent at present.

138. The 1st two suggestions were not approved by the operating officers and in their opinion the present system works best and cannot be improved upon. According to them, the basic requirements for a Cabinman are practice, experience and complete familiarity with railway administration and with its working and not mere academic qualification. They also expressed their opinion that the Matriculates working as Cabinmen are not likely to remain satisfied with the job because of the tedium involved therein.

139. The nature of duties of Cabinmen is of repetitive character requiring routine observance of certain rules. He is assisted in the performance of his duties by entries in the registers kept in the cabin and also by visual check up of the position at the station. These entries refer to simple facts mostly relating to the occupation or blocking of the lines. Further, Assistant Station Masters whose minimum qualification is Matriculation, are put in charge of more important cabins where train and shunting movements are of intensive and diverse nature.

140. The purpose of suggesting minimum educational qualification, however, is that Cabinmen on whose work rests the safety of millions of people should be able to read rules governing their duties with ease and facility. Education makes a person alert and more responsible and in our view this assumption cannot be considered to be unjustified. The suggestion that a Cabinman should be Matriculate has been made to achieve only this purpose. We are not impressed by the argument that if persons with matriculation certificates are appointed as Cabinmen then they would not be satisfied with their job. If this view is

correct, then in the near future it will become very difficult for the Railways to get satisfied Cabinmen because soon every citizen of India will have received free and compulsory education up to the age of 14 as laid down in the directive principles of our Constitution and which directive is being rapidly implemented. We are, therefore, of the opinion that minimum educational qualification for Cabinman should be fixed, but whether up to Matriculation certificate or lower is a matter of detail and these details should be worked out by the Railway authorities. This minimum standard should be laid down so that he may be able to read the Railway rules with facility and remain comparatively more alert when on duty. Our point is that a Cabinman should be able to read these rules with ease in the language with which he is familiar. This educational qualification is intended to be applicable only at the stage when a person is being promoted as Cabinman.

141. We have not got any data whether a direct recruitment as Cabinman will lead to improvement and we leave this matter for consideration by the authorities concerned.

142. It is not necessary to lay down longer period of training for Cabinmen when the officers concerned are satisfied that the present period of training is sufficient.

143. Cabinmen perform extremely important duties and as has already been stated, on their proper working depends lives of millions of passengers. For this reason in our opinion the working and serving conditions of these Cabinmen should be the special concern of the Railway authorities. Every individual Cabinman works throughout his shift duty single-handed in one room. It is necessary that he should remain alert and should be safety conscious all the time. We are, therefore, making the following suggestions :

(i) We are given to understand that every Cabinman, under the instructions issued by the Railways, should go for Refresher Course in a training school for 21 days after every five years. Apparently, this rule is not being implemented as is indicated in the case of Cabinmen Ram Autar and C. P. Singh. We find that Shri Ram Autar was not given any Refresher Course for about 6 years while Shri C. P. Singh was given Refresher Course only once during 1960 after about 10 years of service. We are, however, of the opinion that Cabinmen should go for a Refresher Course after three years for the period of 21 days and that this directive must be rigidly implemented. A Refresher Course not only serves as a reminder of rules and as a reminder of working of the various instruments but also gives him a change of atmosphere which can do nothing but good to him. If for this purpose any extra expenditure has to be incurred then in our opinion it would be worth while. We are making this suggestion for the present Cabinmen as for the future entrants who satisfy the minimum qualification laid down for them, this rule of three years may be reconsidered.

(ii) The possibility of promotions of Cabinmen or quicker promotions requires detailed examination of the situation which we have not done and, therefore, we make no recommendation about it. This matter we suggest should be considered by the authorities with a view to see if it can operate as an incentive to Cabinmen.

(iii) It appears that the practice of trasferring Cabinmen at regular intervals is not prevalent on the Eastern Railway. A change of environment and surroundings is likely to keep a Cabinman alert and vigilant. The change of station by itself will compel the Cabinman to go through the rules carefully and particularly the Station Working Rules and will, thereby, make him more confident. We understand, however, that transfers are not favoured by the staff and they are transferred only when they show signs of staleness. We, therefore, refrain from making definite recommendation on this matter.

144. Cabinmen maintain various registers. The present rule is that when a line is being blocked by a goods train the Cabinman should make entries both in the Train Signal Register and in the Log Register. This rule should be rigidly enforced.

145. We propose that the blocking of a line or subsequent clearing of a line should be made in the Train Signal Register as now but in block letters. It can be seen easily when Cabinman looks at the register to check the position and will also be of assistance to the person taking over from him.

146. In the present case a dispute arose whether at the time of asking for the slot for the Home Signal, the Cabinman asking for the slot indicates the line or it is nominated by the person giving the slot. There is no rule in so many words which would say as to who is to indicate the line at the time of requirement of a slot and it is for this reason that this dispute was raised. We suggest that the Station Working Rules should be made specific on this matter and give clear and explicit directions.

147. A suggestion has been made that psychological tests should be adopted to test the accident-proneness of the running and train passing staff before recruitment or promotion. We are reluctant to accept this suggestion at the present time when, as far as we know, there are very few properly qualified and experienced psychologists in this country. As at the present time the field of choice of psychologists is limited, we fear that it may lead to abuse in the hands of an unscrupulous psychologist. It will then be rather difficult for the appointing authorities to ignore his report. As far as we know the science of psychological test in India has really not so advanced as to place a psychologist in a better position than experienced persons who select and promote railway employees. We, therefore, do not approve of this suggestion under the present circumstances.

148. Normal train passing is the duty of the Cabinman, but in case of departure from normal train passing, such as, shunting and stabling of trains involving blocking of a line, the Station Master has certain specific duties to perform. Rules provide that the Station Master should block the line and convey his instructions to the Cabinman on telephone with the exchange of Private Numbers. Thereafter it is the Cabinman's responsibility to see that no train is admitted on the occupied line. In view of his increased responsiblities in this respect we thought that some other mechanical device may be evolved which may assist him in performing his duties correctly. Shri Sen has proposed that lever locks should be provided on Home Signals and after the Station Master on duty has given instructions to the Cabinman regarding the blocking of a line he should ask the Cabinman to transmit to him the key of the relevant Home Signal which will be in possession of the Station Master on duty so long as the line remains blocked, thus preventing the Cabinman from lowering the Home Signal for a blocked line. When the block is removed, the Station Master on duty will return the key to the Cabinman, thus restoring normal working. The estimated cost of this proposal is Rs. 12,000 for a station of the type of Dumraon. The operating officers did not favour this proposal. Their objections, however, are that responsibility should remain with the Cabinman and the Station Master on duty should not be brought more into the picture because otherwise in case of accident he will cease to be an independent person and may manufacture evidence which would exculpate the station staff and implicate the Driver by manipulating the levers, etc., in such a way that it would appear that the station staff had taken correct steps. In our opinion this conservative attitude on the part of the operating officers should not be considered final and the proposal requires further careful consideration by the authorities.

149. *Miscellaneous suggestions.*—Shri D. C. Desai, Commissioner of Railway Safety, made various other suggestions in this connection and we enumerate them below with our comments :—

(a) On sections with heavy density of traffic, train passing duties should be performed by literate and intelligent cabin ASMs who can read the Manuals and follow the instructions more effectively than illiterate switchmen or cabin signalmen. Where such ASMs are not provided, the S.M. on duty should have electrical control over the lowering of signals. Such control may be effected either by electrical slide instruments or by means of electrical slots.

We have already discussed the first portion of this proposal earlier and no further comment is required.

In our view the provision of such control by Station Master on duty at a station of the type of Dumraon is not desirable because the Station Master on duty would not be in a position to undertake this additional responsibility without effecting his other work. He may not be able to leave his room to perform other duties. It may also result in slowing down the traffic on busy routes.

(b) Whenever loading and unloading of packages has to be done on platform, a separate siding with a platform and a ramp should be provided so that the main line or running lines at the station may not be obstructed for this purpose.

We are of the opinion that construction of platforms on Loop lines will not only reduce the possibility of accidents of the type with which we are dealing, but would also facilitate traffic by leaving the main line unoccupied by a stopping passenger or goods train. We recommend, therefore, that where there is a common platform between Up and Down Main lines and no platform on Loop line, such as at Dumraon, platforms should be provided to serve the Loop lines. If financial consideration prevents implementation of this recommendation at every station where not so provided at present,

then we suggest that such platforms should be constructed as soon as possible wherever density of traffic is high.

(c) Whenever a train is expected to occupy a running line for more than ten minutes at night, the headlight of the engine should be kept on and the Guard should display a red light in the rear towards the cabin.

When the headlight of a stationary engine is kept fully 'ON' then it is difficult for the Driver of an incoming train to see the reception signals and, therefore, we do not accept this proposal.

As regards displaying of a red light in the rear there is already a rule requiring the last vehicle of a train to have tail lamp and, therefore, the Guard should not be burdened with this additional and impossible duty.

(d) A warning bell and flashing light to be provided in the cabins operated by treadles at facing and trailing points to serve as a warning to the cabin that the track is occupied.

This proposal also cannot serve any useful purpose and in fact would be a source of nuisance, when the track is occupied for some length of time. Moreover, it is always open to the Cabinman to stop the ringing of the bell whenever he gets tired of it.

(e) An electric push botton to be provided near the cabin window facing towards the station, the button being required to be pressed every time a signal has to be lowered, there being a time relay to prevent the button being pushed more than half a minute before the actual operation of the lever. If the signal lever is pulled before a button is pressed, a bell will ring as a warning to the Cabinman while he pulls the lever. The object of this device is that the Cabinman will have actually to go to the window for visual observation that the track is clear before he can lower the signal for the track.

The device is supposed to provide an additional visual check to the Cabinman. We, however, feel that this will not serve any useful purpose.

(f) The main line on which fast trains are allowed to run through a station should not be occupied by any vehicle or train for unloading or other traffic purposes over a period exceeding ten minutes.

It is impossible to lay down such a rigid rule which may keep the line idle and thus hamper the movement of traffic.

(g) While a train is standing on a running line the Guard and Driver of the train must watch the Home and Starter signals of the line so as to check that signals are not wrongly lowered for the line while it is occupied.

The Guard and the Driver have many duties to perform while the train is standing on a running line and it will not be possible for them to perform the duty of watching the Home or Starter signals.

150. Apart from Shri Desai's suggestions discussed above, the Commission has a few general observations to make which are as under :—

(i) General Rule and Subsidiary Rule 149 lay down certain rules to be observed when a running line is fouled or obstructed or blocked with a stabled train. The tenor of the rules is to restrict the occasions when a running line should be blocked. We are not aware of any rule which differentiates a Main line from other running lines for such blocking. We, however, feel that instruction is necessary for the staff to understand that the blocking of a Main line is not to be treated as on a par with the blocking of other running lines as this may have various repercussions particularly on the punctuality of trains. We feel that in order to ensure that this aspect is not lost sight of in the context of increasing traffic, instructions be issued to the staff drawing their attention to this important matter.

(ii) Cases also arise where a Main line is blocked with a full train under orders of the Section Controller as happens in the case when he orders shunting of an Up train to a Down line and *vice versa* under Subsidiary Rules 160. As the blocking of a Main line is likely to have various repercussions on train operation, specially on the punctual running of passenger services, it should be done as sparingly as possible. It appears appropriate that

specific instructions should be issued drawing the attention of the Control staff to the importance of keeping the Main line clear to the maximum extent possible and that whenever, for unavoidable reasons, he has to give order for the blocking of a Main line by a train, he should reduce his instructions to writing which would enable him to weigh the implications of his instructions before communicating them to the station concerned.

(iii) We would suggest that where an accident results in human casualties, the punishment under Section 101 of the Indian Railways and Act should be increased to five years Rigorous Imprisonment so that it may act as a deterrent to the persons responsible for safety of trains from acting carelessly, negligently or rashly.

151. *Summary of recommendations*:—

(A) *Electrical and Mechanical Devices* :

(1) The Commission feels that audio-frequency electronic transistorised track-circuit should be considered as an alternative to conventional track-circuit and trials should be carried out by the Research Designs And Standards Organisation with a view to assess the comparative advantages and costs of both the systems. (Paras 122 and 123).

(2) Track-circuiting of the Main line at road-side stations should be taken in hand as early as possible. (Para 129).

(3) Further research or trials for adapting electrical and mechanical appliances which are being adopted on some of the advanced railway systems for minimising accidents due to collision should be conducted on the Indian Railways on top priority basis. This should not, in any way, be affected by financial considerations. (Para 130).

(4) Due consideration should be given to the question of providing lever locks on Home signals with clear instructions that whenever a running line is blocked, the key should be taken out from the locks on the relevant Home signal levers and transmitted to the Station Master on duty. When the block is removed, the Station Master on duty will transmit the key back to the cabinmen, restoring normal working. (Para 148).

(B) *Staff Matters* :

(5) Considering the responsibility shouldered by the Cabinman, the Commission recommends that minimum educational qualification for the Cabinmen should be higher than mere literacy test which is prescribed at present. What the minimum qualifications should be, the Railway Board should determine after taking all relevant factors into consideration. The Commission, however, feels that the minimum educational qualification should be such as to enable the Cabinmen to read the Railway Rules in the language with which they are familiar with ease and facility. (Para 140).

(6) The Commission recommends that Refresher Course for the Cabinmen should be arranged after every three years instead of five ysars as at present so long as they do not have the minimum educational qualification referred to in item (5) above. [Para 143(i)].

(C) *Rules And Rule Books* :

(7) Future prints of the Cabinmen's Rule Books in Hindi should be in better and bolder type similar to those used in 1929 Hindi edition of the extracts of General and Subsidiary Rules for the use of Cabinmen, Pointsmen, etc. (Para 134).

(8) Steps should be taken to have fresh copies of Rule Books printed when the correction slips are too many. (Para 134).

(9) The Station Working Rules should be translated in regional languages for easy understanding of the staff and copies thereof should be made available to the Cabinmen. (Para 135).

(10) Clear instructions should be issued to the train passing staff that in the event of a running line being blocked or subsequent clearing of a blocked line, entry should be made in the Train Signal Register in block letters. (Para 145).

(11) Specific provisions should be made in the Station Working Rules indicating clearly that at the time the Cabinman asks for the slot for the Home signal, he should also indicate the line on which he intends to receive the train. (Para 146).

(12) Special instructions should be issued to the staff drawing their attention to the necessity of ensuring that the Main line is not ordinarily blocked. [Para 150 (i)].

(13) Specific instructions should be issued to the Control staff to the importance of keeping the Main line clear to the maximum extent possible and that whenever instructions are given by the Control staff for the blocking of Main line by a train, these should be recorded in writing. [Para 150(ii)].

(D) *Miscellaneous* :

(14) At stations where the platform is common between Up and Down lines and there is no platform on Loop line, a platform should be provided to serve the Loop line. These works may be taken in hand as soon as possible wherever density of traffic is high, so as to minimise cases of blocking of Main line. [Para 149(b)].

(15) Section 101 of the Indian Railways Act should be amended so as to enhance the existing punishment of two years Rigorous Imprisonment to five years. [Para 150(iii)].

152. In our preliminary report dated the 3rd September, 1962, we placed on record our appreciation of the excellent work done by Shri J. N. Kohli, Secretary of the Commission. In concluding our final report we would again like to record our appreciation of the very valuable services which Shri J. N. Kohli continued to render as Secretary of the Commission. His arrangements for the sittings of the Commission both at Patna and Delhi as also his management of the secretariat staff left nothing to be desired and placed in the hands of the Commission a machinery that rendered prompt and efficient service. We also desire to thank the Railway Administration, particularly the General Manager of the Eastern Railway and his officers who rendered very valuable assistance to us during our work by supplying all information asked for and particularly for the setting up of a realistic model of Dumraon station in Lady Stephenson Hall, Patna, which helped every one in understanding the work of Dumraon station.

The Commission thanks Shri M. M. Khan, President, and Shri S. R. Guha, General Secretary of the Indian Railways Conference Association, for making available the Meeting Room and requisite office accommodation in the I.R.C.A. Building during the period the Commission functioned at Delhi.

The Commission is also indebted to Shri H. N. Sanyal, Additional Solicitor General, who represented the Eastern Railway for the able and impartial manner in which he conducted the case and for the assistance rendered by him.

(Sd.	-) A. C. MUKHERJEE, Retired Director-General, Research Designs and Standards Organisation,	(Sd.	-) BISHAN NARAIN, Retired Judge, Punjab High Court,	(Sd.	-) M. THIRUMALA RAO, M.P.
Member.	Chairman.	Member.			

NEW DELHI;

7th January, 1963.

ANNEXURE 'A'

PRELIMINARY REPORT OF COMMISSION OF INQUIRY DUMRAON ACCIDENT, 1962

On the night of 20th July, 1962, 6 Down Amritsar-Howrah Mail started for Howrah. It left Mughal Sarai on 21st July, 1962 at the scheduled time. It stopped at Buxar, the next stopping station at about 21.30 hours. The next halt of this train was Arrah station. In between Buxar and Arrah, the train had to pass through various stations. The first, second and third stations are Baruna, Dumraon and Twining Ganj. At 20.44 hours

Goods train 1267 Up S.Q.T. was shunted on to the Down Main line of Dumraon station. The Amritsar-Howrah Mail train after leaving Buxar passed through Baruna and was received at Dumraon station on the Down Main line. As already stated, at that time 1267 Up was blocking this line. The result was that the Mail train had a head-on collision with the Goods train. As a result of this collision, the engines of the two trains were badly damaged. Four coaches of the Mail train derailed, were interlocked and badly damaged. Other two coaches derailed and were damaged. The remaining six coaches remained intact and undamaged on the line. The Loco Rest Van and one wagon of the Goods train capsized, while another wagon was derailed and damaged. As a result of this unfortunate accident, 74 persons died, 66 on the spot and 8 subsequently in or on their way to Patna and Dumraon hospitals; in addition, 74 persons received injuries.

The Government of India acting under the Commission of Inquiry Act 1952 (LX of 1952) issued the following notification on 27th July, 1962:—

"Whereas the Central Government is of opinion that it is necessary to appoint a Commission of Inquiry for the purpose of making an inquiry into the causes of the collision between 6 Down Amritsar-Howrah Mail and 1267 Up S.Q.T. Goods train at 22.30 hours on 21st July, 1962, at Dumraon station on the main line of Dinapore Division of Eastern Railway.

Now, therefore, in exercise of the powers conferred by Section 3 of the Commission of Inquiry Act 1952 (No. LX of 1952) the Central Government hereby appoints a Commission of Inquiry consisting of—

Chairman

(i) Shri Bishan Narain, Retired Judge of the Punjab High Court.

Members

(ii) Shri M. Thirumala Rao, M.P.

(iii) Shri A. C. Mukerjee, Retired Director General, Research, Designs and Standards Organisation.

2. The said Commission shall—

(a) make an inquiry into the causes of the said accident and for that purpose take such evidence as may be necessary;

(b) state its findings as to causes of the said accident and as to the person or persons, if any, responsible therefor; and

(c) suggest safeguards against similar accidents in future.

3. The said Commission shall submit its report to the Central Government within a period of one month from the date on which it commences its inquiry.".

A copy of this Notification was sent by the Government of India to the Chief Secretary, Bihar State.

The Commission held preliminary discussions at the residence of the Chairman on 31st July and 1st of August, 1962. The Commission decided to inspect the site on the 13th of August, 1962. Notices were sent to the various officials, who were on duty at the station when the accident took place, to be present at the time of inspection personally or through their counsel. Intimation of our contemplated visit to the site was also sent to the Chief Secretary, Bihar State, District Magistrate, Arrah and Superintendent, Railway Police, Patna. The Commission further decided that it would hold sittings at Patna since that was the nearest place from the site of accident best suited for holding sittings and examining witnesses. It was further decided that evidence would be recorded from day to day beginning with 25th August 1962, by which date it was expected that all those who wanted to give evidence would be able to arrange to be present at the hearing. Press notices were published in the leading daily newspapers wherein a request was made to those members of the public who were in a position to assist the Commission to send their memoranda so that the Commission might decide who should be called for evidence.

In the meanwhile, the Additional Commissioner of Railway Safety concerned commenced his statutory inquiry and recorded evidence on the 23rd, 24th and 25th of July, 1962. He, however, suspended the inquiry on learning of appointment of this Commission and forwarded the evidence recorded by him till then to the Railway Board, which was duly made available to the Commission.

On the 13th of August, 1962, the Commission inspected the site of accident accompanied *inter alia* by various Railway Officers representatives of the Government Railway Police and the two Cabinmen and the Assistant Station Master, who were on duty at the time of the accident.

On the 25th of August, 1962, the Commission commenced its sittings in the Lady Stephenson Hall, Patna. The Railway Administration was represented by Shri H. N. Sanyal, Additional Solicitor General, assisted by Shri S. K. Guha, Law Officer of the Eastern Railway. The Bihar State was represented by Shri R. K. Singh, Senior District Prosecutor. Shri N. G. Mukherjee, Advocate, appeared on behalf of the All India R.M.S. Employees' Union Class III, Bihar Circle Branch. At a later stage on the same day Shri A. K. Dutt, Advocate, appeared on behalf of Shri Ram Autar, who was on duty in the West Cabin at the time of the accident.

Shri Sanyal opened the case on behalf of the Railway and indicated in the course of his statement of the case that the two Cabinmen who were on duty at the time of the accident were responsible for receiving the 6 Down Mail on the blocked line. In the course of his statement, the Additional Solicitor General referred to certain documents and informed the Commission that the Police were in possession thereof. Shri R. K. Singh on being questioned stated that these documents were in the custody of the Sub-Divisional Officer, Buxar. The Commission thereupon felt that possibly the subject matter of the inquiry was *sub-judice*, and asked the learned counsel to look into the matter and to find out the exact position. Subject to this, the proceedings were continued and Shri Rama Rao, Divisional Signal and Tele-communication Engineer, Dinapore, was examined.

The Commission did not sit on Sunday the 26th of August, 1962.

On Monday, the 27th of August, 1962, Shri Sanyal stated that in his view if cognizance of the case had been taken by a criminal court then the proceedings conducted by this Commission would amount to parallel investigation and that such an investigation might amount to contempt of the criminal court. He further submitted that assuming the Commission to have jurisdiction to hold parallel inquiry, the continuance of the inquiry by the Commission will have prejudicial effect on the trial of the two Cabinmen. The Commission asked Shri R. K. Singh if the case relating to the above mentioned accident had gone to the criminal court and had been taken cognizance thereof. The learned counsel stated categorically that no cognizance had been taken and that such a cognizance would be taken on the 30th of August, 1962. He suggested that long time would elapse before the criminal court dealt with the matter and that the inquiry by this Commission can be finished long before that.

As the Commission felt that Shri R. K. Singh may not be fully conversant with the facts of the case, he was directed to look into the matter carefully and to give in writing the correct facts relating to the proceedings that had been taken on the First Information Report which had been filed soon after the accident. The Commission further requested Shri R. K. Singh to see that the criminal court does not take cognizance of the case meanwhile.

Thereafter the Commission suggested to Shri Sanyal that till full information was available, the proceedings may continue, but the learned counsel expressed the opinion that it would not be proper to continue the proceedings in the circumstances of the case. Calling upon Shri R. K. Singh to give all the facts in writing, the Commission directed all the counsel to study the legal position and inform the Commission if it could proceed with the inquiry. The case was then adjourned to the 28th of August, 1962.

On the 28th of August, 1962, Shri R. K. Singh produced a manuscript copy of the orders which showed that cognizance of the case had in fact been taken, on the 24th of August, 1962 and 31st of August, 1962 had been fixed for the hearing of the criminal case. On inquiry the learned counsel stated that the manuscript was prepared by a man sent by him to Buxar. Shri K. P. Verma, Advocate, then informed the Commission that he was appearing for the Bihar State. The Commission thereupon sought the required information from him but he was not in a position to do so. He stated that he was instructed only to argue before the Commission that it would not be guilty of contempt of court if it continued to take proceedings even after the criminal court had taken cognizance of the case. The Commission adjourned the hearing and asked Shri Verma to find out the correct facts. After about 10 to 15 minutes Shri Verma gave facts which he had collected from Shri Singh and stated that cognizance of the case had been taken by the criminal court on the 24th of August, 1962 and that the case had been transferred to Shri J. Singh, Munsif Magistrate, Buxar, for the trial of the two Cabinmen under Section 101 of the Indian Railways Act and under Section 304 A of the Indian Penal Code. He then argued that the Commission could continue the proceedings in spite of the fact that the matter was *sub-judice* in a criminal court. He urged that the Commission had been constituted under 1952 Act and had a statutory right to hold the inquiry on the points referred to it and that in doing so, it would not be guilty of contempt of court. Shri Verma conceded that all the facts and circumstances relevant in the criminal court would also be relevant in the inquiry to be held by the Commission and further that the same witnesses would give the relevant evidence before the criminal court as well as before the Commission. Shri Sanyal then submitted that if the

1952 Act is construed reasonably then the Commission could only inquire into matters which are not *sub-judice*. He, however, pointed out that even if simultaneous proceedings were permissible in law, the Commission, in the exercise of its discretion, should stay proceedings. Shri Sanyal indicated that the Government set up the Commission of Inquiry with the intention that it would hold an open and public inquiry. The Police, has, however, on investigation come to the conclusion that the two Cabinmen alone are responsible. In this context, according to Shri Sanyal, the Cabinmen would probably not make any statement before the Commission and thus the Commission would be deprived of very essential material in coming to its findings.

He further stated that it was not the intention of the Government that the inquiry held by the Commission should, in any way, prejudice a fair trial of the persons accused under Section 101 of the Indian Railways Act and under Section 304 A of the Indian Penal Code, nor should it adversely affect the prosecution case. Shri Dutt arguing on behalf of his client agreed with the views expressed by the learned Additional Solicitor General.

After hearing the counsel we decided to adjourn the sittings *sine die* and informed all concerned that a fresh date for evidence would be fixed if and when necessary.

We have carefully considered the situation that has arisen by the pendency of the criminal trial. The counsel for the State of Bihar had not cared to produce before us a copy of the First Information Report, nor a copy of the charge-sheet in spite of request to that effect. Shri Verma conceded before us and we have to rely on his oral concession that all the facts that will be brought to our notice in the course of the inquiry will be the facts which will be relevant in the criminal trial. He, however, urged that the scope of our inquiry was wider than the matter pending in the criminal court, and, therefore, the Commission could continue the hearing.

It is well settled that anything done which obstructs or interferes with the due course of justice or the lawful process of the courts or is likely to have any such consequences, amounts to contempt of court. It is also well settled that when a matter is pending for a decision in the court of justice then nothing should be done which might disturb the free course of justice and no person or body of persons, however, highly placed, can take proceedings which may pre-judge the merits of the case by usurping the functions of a court which is seized of the case.

The Commission has been called upon to make an inquiry into the causes of the accident and to give a finding as to the person or persons responsible therefor. The criminal court under Section 101 of the Railways Act and under Section 304 A of the Indian Penal Code is to find whether or not Cabinmen were responsible for the accident through their negligence etc. Thus, substantially the scope of the inquiry before the Commission and the criminal court is the same, although it may be open to the Commission to find on the evidence produced before it, the Cabinmen to be innocent and some other person or persons responsible for the accident. In these circumstances, it is obvious that it may not be possible for the Commission to get the Cabinmen to make a statement before the Commission lest such a statement adversely affects them in the criminal court in spite of the fact that their statement as such before the Commission would not be admissible in the criminal court. If the Commission excludes the conduct of the accused persons from the inquiry then the Commission would not be able to give proper findings as to the persons responsible for the accident. If the Commission includes the conduct of the Cabinmen in the inquiry then the Commission would be usurping the functions of the criminal court which is trying the Cabinmen. In this context it must be remembered that proceedings in courts of law must have preference over proceedings held by any person or body of persons even if that person or body of persons has been appointed under a statute unless the statute provides otherwise. We agree with the learned Additional Solicitor General that our inquiry may be held to be a parallel inquiry by courts of law and that there is a possibility of this Commission being held guilty of contempt of the criminal court. The Commission sees no reason why it should place itself into such a false position. Public inquiry of this Commission at this stage, we are satisfied, is likely to prejudice prosecution or defence and neither consequence is desirable. Shri Sanyal also submitted that the Central Government in view of the peculiar circumstances, might not desire a parallel inquiry by the Commission.

It is open to the Commission to hold private sittings under Section 8 of the 1952 Act. But, in our view, such sittings will not serve the purpose for which the Commission had been appointed. Shri Sanyal also submitted that proceedings in camera will not serve the purpose of the Central Government in the present case. Moreover, the private sittings will suffer from the same infirmity as public sittings regarding prejudice to the defence and the prosecution.

Moreover, the investigation of facts by this Commission would necessarily be infructuous. One of the purposes of the Commission is to investigate facts leading to the accident so that it might be subsequently decided whether any person is criminally liable and, if so, whether he should be prosecuted. This purpose has been defeated by the commencement of the criminal trial. Further, the proceedings, if now taken under the notification, would necessarily be infructuous because the decision of the criminal court on facts leading to the accident must prevail over any finding that this Commission might give as to the cause of the accident and as to the person responsible therefor. The present Commission is not a court of law even though it has some of the powers of Civil Courts.

If the Commission cannot inquire into the causes of the accident and cannot find the persons responsible therefor then it cannot be in a position to suggest remedial measures to prevent similar accidents in future.

The trial of the Cabinmen is likely to take considerable time and thereafter there may be appeals or revision against the orders of the criminal court. In these circumstances, it is for the Central Government to consider whether any useful purpose would be served by continuing this Commission or whether it should not be dissolved under Section 7 of the 1952 Act. The Commission expresses no opinion on this matter of policy.

The position in which the Commission has been placed discloses a serious lacuna in law. The Commission of Inquiry under the 1952 Act can be appointed by the Central Government or a State Government to make an inquiry into any matter of public importance. When such a Commission is appointed it should not be left open to say private individual or to any official to make the appointment of the Commission infructuous by starting judicial proceedings in a court of law. The Commission is of the opinion that powers should be given either to the appropriate authority or to the Commission of Inquiry appointed under the Act to prevent any court from entertaining any proceedings which arise out of the facts which form the subject matter of the inquiry by the Commission. It should also be open to the appointing authority or to the Commission to stop even investigation into facts by the Police because it may well be held that Commission of Inquiry should not prejudice the investigation into criminal offences. We make this suggestion for consideration by the Government.

We cannot part with the case without referring to the attitude of the representatives of the Bihar Government before us. We regret that apparently they were either not willing or they were not in a position to render any assistance to us. It appears strange to us that when the sittings of the Commission were to commence from the 25th of August, 1962, that the Police authorities got the criminal court to take cognizance of the case on the 24th of August, *i.e.*, a day before the commencement of the proceedings. In spite of our requests the Bihar Government has not given us any reason why this was done. What is still more regrettable is that Shri R. K. Singh on the 25th August, 1962, did not know all the relevant facts relating to the criminal case even though he is a Senior District Prosecutor. He categorically stated on the 27th of August, 1962, that cognizance of the case had not been taken, though subsequently, the facts of the case revealed that specific orders taking cognizance of the case had been passed on the 24th of August, 1962. He further submitted to us that the case was yet to be transferred to a judicial Magistrate, but Shri Verma subsequently told us that it had been transferred to the Munsiff Magistrate Buxar, on the 24th of August, 1962.

We repeatedly asked the Counsel concerned to find out from the State Government as to what attitude it would take in the matter in view of the present impasse. The learned counsel was, however, not in a position to tell us anything in the matter. The only stand taken before us on behalf of the State of Bihar was that both the trial and the inquiry can and should go on simultaneously. This the Commission does not consider possible, nor proper.

Whether facts relating to a particular incident should be investigated by a court of law or by a Commission of Inquiry is a matter of policy. Under the 1952 Act, either the Central Government or the State Government could appoint a Commission of inquiry to inquire into the cause of accident at Dumraon. We were so appointed by the Central Government. The Police authorities even after the appointment of the present Commission and with knowledge of this appointment continued investigation on the basis of the First Information Report filed on the date of the accident. The Police authorities completed the investigation and started the criminal case a day before the Commission of Inquiry appointed by the Central Government was to commence its proceedings. Presumably the Police authorities concerned and/or the State of Bihar preferred investigation of facts relating to the Dumraon accident by courts of law. In these circumstances,

it is for the State of Bihar to decide whether it will be willing to withdraw the case from the criminal court. It is now for the Central Government and the State Government to decide, as a matter of policy, whether the facts leading to the Dumraon accident should be investigated by a court of law or by the present Commission of Inquiry. It is not within the province of this Commission to express its opinion on this matter of policy. All that the Commission can say is that proceedings in the criminal court and before the Commission cannot go on simultaneously.

In this view of the matter it is obvious that the present Commission can function only if the criminal trial is withdrawn. It is not the province of this Commission to give its opinion on the propriety or feasibility of the withdrawal of the criminal trial. This is a matter which must be decided between the Central Government and the State Government. It may, however, be pointed out that it may be possible for the State Government to take action under Section 494 Criminal Procedure Code, if so advised. Whether this can be done or not or should be done or not is not for us to say. This matter must be decided at Government level. It may be pointed out that in the course of the arguments on the 28th of August, 1962, opinion was expressed that if the case is withdrawn then subsequently these Cabinmen cannot be prosecuted for the same offences.

In conclusion, the Commission would like to place on record its appreciation of the excellent work done by Shri J. N. Kohli who acted as Secretary to the Commission. His industry, meticulous attention to detail and the excellent arrangements made by him, his staff and the Railway Administration greatly facilitated our task. We wish to thank Shri Kohli and the Railway Administration for the assistance rendered to us during the time we were in Patna.

The Commission is also indebted to Shri H. N. Sanyal, Additional Solicitor General, who represented the Eastern Railway, for the able and impartial manner in which he conducted his arguments and for the assistance rendered by him.

(Sd.) BISHAN NARAIN,
Chairman,
Commission of Inquiry, Dumraon Accident.

DELHI;
September 3, 1962.

ANNEXURE 'B'

Inspection note recorded by the Commission after night inspection of Baruna-Dumraon Section and of Dumraon Station on 26th October, 1962

In order to appreciate better the evidence that came before the Commission regarding visibility from the point of view of Driver and of the Cabinmen as also references regarding certain structures and the position of the staff immediately before the accident, the Commission considered it necessary to inspect Dumraon station during night approximately at the time at which the accident occurred.

2. As urgent movements were taking place at the time, the Commission considered it necessary not to tax the power capacity of the Railway more than it could be helped and decided that its journey from Patna to Buxar should be performed by car and not by train. The Commission left Patna by road at 16.50 hours on 26th October, 1962, arrived Buxar at 20.30 hours and left by Down special train at 20.50 hours. From Baruna the Commission Members travelled on the footplate of the engine so as to have a better appreciation of the situation.

3. An engine and a brake van were stationed on the Down Main line at Dumraon, the engine facing Mughalsarai end and kept at a place where the engine of 1267 Up S.Q.T. train stood on 21st July, 1962, just before the accident. This engine, therefore, simulated the position of the engine of 1267 Up S.Q.T. train just before the accident. This engine had, in turn, its headlight fully on, headlight dimmed and headlight off. When the headlight of the engine was fully on, it could be seen from a long distance, *i.e.* far beyond the Down Warner Signal but the visibility of the Down reception signals was affected due to the strong light being against. With the headlight dimmed it was also visible while approaching the Down Warner signal but there being several other lights at the station, the Commission Members were unable to distinguish the engine headlight.

it is doubtful whether even the expert eye of a Driver could distinguish it either. In any case, it was not possible to say on which line the engine was standing until by cautiously moving the Down train the headlight of the engine shone fully on the front of the stationary engine and illuminated it. This was also the condition when the headlight of the stationary engine was completely off.

4. Owing to the left-handed curve at the approach to the station the distance from which the Commission could distinguish that an engine was standing on the Down Main line and not on the Down Loop line was 868 feet from the left side of the approaching engine and 706 feet from the right side or the Driver's side of the engine. In other words,the Driver of 6 Down Mail could have distinguished the engine of 1267 Up S.Q.T. train standing on the Down Main line and not on the Down Loop line from his side of theengine from a distance of 706 feet. The Commission carried out the test under controlled conditions from an engine which was travelling at a very slow speed and was fully aware that an obstruction had been placed ahead.

5. The Members of the Commission then went upto the West Cabin and looked towards the station building and platform. As stated above, an engine was placed where the engine of 1267 Up S.Q.T. train stood on 21st July, 1962 just before the accident. The headlight of this engine was put off and no buffer lamps were kept. As observed from the Cabin, the engine was silhouetted against the platform lights and it was possible to spot it, although not very clearly, as standing on the Down Main line. Faint visibility continued half way up the platform but beyond that the track was not distinguishable although the lights of both the Down Starter signals were visible.

6. The Members of the Commission then proceeded to the platform and thence to the East Cabin. The engine and the brakevan were moved back and the brakevan was positioned at a place where the last vehicle of 1267 Up S.Q.T. train stood on 21st July, 1962, immediately before the accident. A tail lamp was first placed on the hook of this brakevan and subsequently hung by a wire from the hook so that the lamp was hanging at a lower level. As viewed from the East Cabin, the red light was visible from both the positions and was distinguishable as being on the Down Main line and not on the Down Loop line. After making these observations the Commission returned to Patna.

ANNEXURE 'C'

Description of damages to the engines, coaches and wagons involved in the accident

6 *Down Mail train.*

1. Engine No. 7027 WP—Derailed, both its bogies were badly damaged and severed from the under-frame.
2. 1st bogie No. TLR 6980—Derailed, capsized, telescoped, body and under-frame smashed.
3. 2nd bogie No. GTY 8317—Derailed, capsized and thrown away from the track. Body and under-frame damaged.
4. 3rd bogie No. PPR 173—Capsized, telescoped and body and under-frame smashed completely.
5. 4th bogie No. WAC 7199—Capsized, telescoped and thrown from the track; body and under-frame damaged.
6. 5th bogie No. FC 7901—Derailed, capsized, under-frame and trollies badly damaged.
7. 6th bogie No. GCNT 8533—Derailed of all wheels of Howrah-end trolley.

1267 *Up SOT Goods train.*

1. Engine No. 22218 XC—Derailed and telescoped with the engine of 6 Down Mail. Badly damaged.
2. 1st wagon No. ER 8631 Rest Van - Derailed, capsized and smashed.
3. 2nd wagon No. CR 14965 CL—Derailed, badly torn off from under frame.
4. 3rd wagon No. ER 77372 CE—Derailed of Delhi-end pair of wheels, and damaged.

The load of 1267 Up S.Q.T. parted between 26th and 27th wagons by a distance of about 330 feet due to the impact. The remaining part of the load of 6 Down Mail train and 1267 Up S.Q.T. Goods train did not derail and were unaffected.

The cost of damages is estimated as under:—

	Rs.
(i) Locomotive	3,00,000
(ii) Rolling Stock	8,00,000
(iii) Permanent Way	9,600
TOTAL	11,09,600

ANNEXURE 'D'

Description of points and signals, together with their lever numbers of East and West Cabins of Dumraon Station

East Cabin—

Lever No. 1—Slot Down Main Line Home Signal.
2—Slot Down Loop Home Signal.
3—Down Main Line Starter Signal with co-acting Arm.
4—Down Loop Line Starter Signal.
5—Down Advanced Starter Signal.
6—Coupled points and Trap Up Loop to Siding.
7—Points and Trap Down Main to Loop.
8—Points and trap from Down Loop to the Cattle Wharf.
9—Lock on points No. 10.
10—Cross over Down Loop to Main Line.
11—Points and Trap Up Main to Loop.
12—Lock Bar on Points No. 11.
13—Cross Over No. 13 Down to Up Main.
14—Up Loop Home Signal.
15—Up Main Home Signal.
16—Spare.
17—Up Warner Signal.

West Cabin—

1—Down Warner Signal.
2—Lock on the Level Crossing Gate No. 67.
3—Spare.
4—Down Main Home Signal.
5—Down Loop Home Signal.
6—Lock Points No. 7.
7—Points and Trap Down Main to Loop.
8—Trap from the Up Loop Line to the West I
9—Cross over Up Loop to Main.
10—Lock on points No. 9.
11—Release lever for Points No. T-3.
12—Spare.
13—Up Advanced Starter Signal.
14—Up Loop Line Starter Signal.
15—Up Main Line Starter Signal.
16—Slot on the Up Loop Home Signal.
17—Slot on the Up Main Home Signal.

[No. 62 TTV/1/8].

C. S. PARAMESWARAN, Secy.

PRINTED BY THE GENERAL MANAGER, GOVERNMENT OF INDIA PRESS, MINTO ROAD, NEW DELHI AND PUBLISHED BY THE MANAGER OF PUBLICATIONS, DELHI, 1970